AMATEUR RADIO EMERGENCY SERVICE

FOR

MILWAUKEE AND WAUKESHA COUNTIES, WISCONSIN

EMERGENCY AND ROUTINE PLANS AND PROCEDURES MANUAL

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1. INTRODUCTION

1.1 The Amateur Radio Emergency Service (ARES) for Milwaukee and Waukesha Counties (hereinafter: "ARES"), is an organization of FCC licensed radio amateurs who have volunteered their time and equipment for the purpose of supplying communications services to their community in times of emergency.

1.2 Under federal regulations, the contents of messages handled by amateur radio are not divulged to unauthorized persons. similarly, no compensation of any kind may be received in return for the performance of communications services by amateur radio.

1.3 The ARES functions at the direction of the Emergency Coordinator appointed under ARRL auspices for Milwaukee and Waukesha Counties. The Emergency Coordinator appoints as many Assistant Emergency Coordinators as is necessary and assigns to them such duties and responsibilities as he deems appropriate.

1.4 The purpose of this manual is to provide a single written manual for use by the ARES. It contains emergency plans as well as routine plans, procedures, and policies. It is designed for easy expansion and supplementation.

1.5 Certain portions of the manual, particularly the emergency plans, are designed to be excerpted and published as complete units. Permission to do so is hereby granted with the request that the source of the material be noted in the republished version.

1.6 All original pages and all revised pages should show the date of promulgation at the bottom left hand corner.

2. PURPOSE

2.1 The purpose of the Amateur Radio Emergency Service is to provide emergency communications services to government and private relief organizations in times of natural or man-made disaster or emergency.

2.2 The ARES has agreements to provide communications as requested to the following governmental or social service agencies:

- Milwaukee County Emergency Government
- Milwaukee Weather Service (NOAA) Office located in Sullivan, Wisconsin
- Red Cross
- Salvation Army
- Milwaukee Blood Bank

2.3 Any one or more of the above organizations may call upon the ARES to provide emergency communications.

2.4 In addition, the ARES provides communications services to civic agencies and groups in support of fund raising and similar activities, for the purpose of training its members and testing and proving equipment and techniques.

3. ACTIVATING THE EMERGENCY PLAN

3.1 Activation of one or a combination of emergency plans shall be by the Emergency Coordinator, or in his absence, the Deputy Emergency Coordinator or the Acting Emergency Coordinator.

3.2 The Emergency Coordinator or his designate will activate a plan upon request to do so by an agency served by the ARES. He may also activate a plan on his own authority when it is apparent that an emergency situation exists and activation at that time is necessary.

3.3 The Emergency Coordinator or his designate carries a voice message pager. Information regarding the pager is issued on a need to know basis.

3.4 Any person who believes that a communications emergency has occurred or will occur should relay that information to the Emergency Coordinator.

3.5 The Emergency Coordinator will activate the repeater tone alert at the beginning of any communications emergency or exercise.

3.6 All Milwaukee area amateurs should monitor the ARES repeater (146.07/67MHZ) for information as to emergency plan activation.

3.7 Assistant Emergency Coordinators will monitor the ARES repeater at all times when there appears to be a threat of an emergency.

3.8 At the direction of the Emergency Coordinator, one or more amateurs will relay a message regarding activation to other repeaters in the area with a request that all amateurs switch to the ARES frequency.

3.9 If insufficient personnel are available on the air, and if the telephone system is working, the Emergency Coordinator may authorize one or more stations to proceed with a telephone tree utilizing the latest edition of the ARES roster.

3.10 The primary amateur radio emergency communications channel in the Milwaukee area is the ARES repeater. Input is 146.07 MHZ and output is 146.67 MHZ. See chapter 9 for further information.

3.11 Other repeaters and frequencies may be utilized as necessary for efficient operation.

3.12 Upon activation, the Emergency Coordinator will appoint a Net Control Station which will then proceed as outlined in the appropriate plan.

3.13 The Emergency Coordinator will then proceed, if he has not already done so, to the headquarters of the agency responsible for overall command during the emergency.

4. SEVERE WEATHER PLAN

4.100 For the better part of two decades prior to October 31, 1989, the Milwaukee ARES was responsible for coordinating the amateur radio contribution to the Milwaukee National Weather Service (NWS) Sky Warn program. With the construction of new NWS facilities in Sullivan, Wisconsin, the responsibility for supplying manpower and coordination at the Weather Service Office (WSO) at Sullivan passed to a special Emergency Coordinator appointed for that purpose. Concurrently, Milwaukee and Waukesha Counties were merged into a single ARES entity. The Milwaukee/Waukesha ARES continues to be responsible for providing a coordinating net on 07/67 which will forward severe weather reports from Southeast Wisconsin to the Sullivan WSO and stand ready to coordinate disaster relief efforts in Milwaukee and Waukesha Counties.

4.101 The purposes of a severe weather net are multiple and include the following:

a) To give the Weather Service direct access to several hundred observers in Southern Wisconsin. This provides an additional source of eyewitness reports of severe weather necessary to the forecasters. This is the primary mission of the net until the threat of severe weather has passed. In the event of a local disaster occurring during a severe weather net, disaster and weather communications will be equal in priority.

b) To provide other served agencies with timely data relating to severe weather for their planning purposes.

c) To provide a supplementary channel of communications to client agencies in the event of an overload on primary communications circuits.

d) To provide an in-place primary communications circuit capable of handling message traffic in the event normal lines of communications between client agencies are severed.

e) To have an in-place and functioning communications net capable of shifting to support of disaster relief operations during or after the termination of the severe weather alert.

4.102 The Milwaukee/Waukesha ARES severe weather net will be called upon the issuance of a Tornado Watch by NEW which includes Milwaukee and Waukesha Counties. Similarly a standby net will commence upon the issuance of a Severe Thunderstorm Watch by NWS which includes Milwaukee and Waukesha Counties. The level of activation may be reduced to standby status by the EC if it is apparent that the local area will not be affected by severe weather for several hours.

4.103 Upon issuance of the watch, the Emergency Coordinator or his deputy will initiate a Severe Weather Net on the ARES repeater as follows:

A) Activate the emergency tone.

B) Check in all available Assistance Emergency Coordinators.

C) Make such immediate assignments as he feels necessary. (e.g.: Sheriff's Office liaison stations)

D) Appoint a Net Control Station who will implement the remainder of the call up procedure and will start a directed net. (see 4.106)

E) Appraise the Net Control Station of the current situation and personnel assignments already made.

4.104 Upon completion of the above, the Emergency Coordinator will proceed to the Emergency Operations Center of Milwaukee County, the Safety Building, 821 West State Street.

4.105 The Deputy Emergency Coordinator will proceed to _____ _____ and will take charge of ARES operations at that location. In the event that the severe weather causes damage such that the Red Cross activates to provide services in support of disaster relief operations, the Deputy Emergency Coordinator will, at the conclusion of the severe weather threat, proceed to the Red Cross headquarters to take charge of operations there.

4.106 DUTIES OF THE NCS. The duties of the Net Control Station (NCS) shall include the following:

A) Direct and maintain control over traffic being passed on the ARES repeater.

B) Assign personnel to operate priority net stations, if not done by the EC and assign relief personnel as necessary.

C) Periodically read instructions on net procedures and types of severe weather to report using prepared scripts.

D) Keep the frequency clear for emergency communications.

E) Acknowledge and respond to all calls immediately.

F) Maintain an accurate log of all calls and traffic.

G) The NCS should be equipped with emergency power.

4.107 DUTIES OF THE BACK-UP NCS. As soon as possible after activating the net, the NCS should assign a back-up NCS who will be responsible for keeping abreast of all matters on the net so as to be able to take over NCS at a moment's notice:

4.108 PRIORITY SEVERE WEATHER NET STATIONS. Certain stations are designated Priority Stations. They may call any other station without going through Net Control. The call sign of a priority station shall be the name of the station rather than the call of the operator at that station. The priority severe weather net stations are:

"Milwaukee Weather"
National Weather Service Office
Sullivan, Wisconsin

"State Weather"
W9NGT
Sherm Carr
Hartford, WI

"Sheriff"
Milwaukee County Emergency Government and
Milwaukee County Sheriff's Department
Safety Building
821 West State Street, Milwaukee, WI

"Red Cross"
American Red Cross
26th Street and Wisconsin Avenue, Milwaukee, WI

"Waukesha County"

_____

_____

"Waukesha Red Cross"

_____

_____

"Waukesha City"

_____

_____

PART II

4.200 SEVERE WEATHER NET FORMAT. Because each severe weather alert will be handled individually, an exact format for all severe weather nets is not practicable. However, the following format should be used as a guideline by the NCS.

A) Upon appointment by the Emergency Coordinator, the NCS shall activate the emergency tone.

B) Read the Severe Weather Net "Activation Format." (see 4.201)

C) Appoint a backup NCS.

D) If not already done by the EC, the NCS shall assign operators to the priority stations. Whenever possible persons assigned should be ECO's who have received training in the procedures and operation of the equipment at the priority station.

Emergency Government -- two operators.

Sheriff -- two operators

Red Cross -- three operators (ONLY IF DIRECTED BY THE ec OR HIS DEPUTY.)

E) Read "Severe Weather Report Outline" Script. (see 4.202)

F) Ask Milwaukee Weather for:

1. Current weather situation.

2. Watch number, perimeters and expiration time. (This information to be relayed to State Weather when requested.)

3. What specific information the National Weather service needs and from what area.

G) Maintain a log of all reporting stations and the information they are reporting.

H) As time permits read the "Severe Weather Report Criteria" and "Reporting Procedure: scripts. (see 4.203 and 4.204)

I) During periods of inactivity, read the "Continuity Announcement" (see 4.204) to keep the frequency open and to keep stations that may have just turned to .07/.67 advised that a net is in progress.

J) Should KEC-60 broadcasts interfere with net operations, it can be dumped with a touch-tone "0" over the air.

K) When advised by the EC or his deputy to secure the net, read the "To Secure The Net" format. (see 4.205)

L) Stand by for further announcements from the EC or his deputy.

M) At the direction of the EC, NCS will assign properly equipped and located stations to act as liaison with the following repeaters:

22/82 - Delafield	3.985 MHZ Tri State
31/91 - New Berlin	Emergency Services
87/27 - Racine	Net
37/97 - Walworth County	
	145.13 Milwaukee

Two stations should be appointed to each liaison assignment. One will monitor 07/67 Milwaukee at all times and switch to the assigned repeater to pass traffic from Milwaukee to his assigned repeater. He will then switch back to 07/67 Milwaukee to stand by for additional outgoing traffic. The second station selected shall monitor the assigned repeater at all times and switch to 07/67 Milwaukee only to pass traffic from the assigned repeater to 07/67 Milwaukee. He shall then switch back to copy additional incoming traffic. Only if there are insufficient qualified stations, shall one station be given both assignments and then only if the operator is competent and properly equipped to monitor both channels simultaneously.

4.201 SEVERE WEATHER NET ACTIVATION FORMAT

ATTENTION, ALL STATIONS.

THIS IS _____ NET CONTROL STATION FOR THE
(your call)

MILWAUKEE WAUKESHA A R E S.

A SEVERE WEATHER NET IS NOW CALLED _____ LOCAL TIME.
(time)

THIS IS A DIRECTED NET AND ALL COMMUNICATIONS WILL BE AT THE DIRECTION OF THE NET CONTROL STATION. ONLY STATIONS WITH LEGITIMATE SEVERE WEATHER REPORTS OR EMERGENCY TRAFFIC SHOULD BREAK INTO THIS NET.

GUIDELINES OUTLINING LEGITIMATE SEVERE WEATHER REPORTS WILL FOLLOW.

THE CURRENT SITUATION IS _____

_____
(brief outline of current weather situation)

ALL ASSISTANT EMERGENCY COORDINATORS PLEASE CHECK IN AT THIS TIME WITH YOUR CALL SIGN AND AVAILABILITY. THIS IS _____
(your call)
NET CONTROL.

4.202 SEVERE WEATHER NET
SEVERE WEATHER REPORT OUTLINE

ATTENTION, ALL STATIONS.

THIS IS _____ NET CONTROL.
(your call)

A SEVERE WEATHER NET IS NOW IN PROGRESS. ONLY STATIONS REPORTING ONE OF THE FIVE SEVERE WEATHER EVENTS OR EMERGENCY TRAFFIC SHOULD BREAK INTO THIS NET.

THE ONLY REPORTABLE EVENTS ARE TORNADOES ON THE GROUND .. FUNNEL CLOUDS ALOFT .. HAIL - ONE-HALF INCH OR LARGER .. WINDS IN EXCESS OF FIFTY-FIVE MILES AN HOUR .. FLOODING OR OTHER ACTUAL STORM DAMAGE.

REPORTS OF EVENTS NOT FILLING THESE CRITERIA SHOULD NOT BE PASSED UNLESS SPECIFICALLY REQUESTED BY NET CONTROL. ALL SEVERE WEATHER REPORTS SHOULD CONTAIN THE ELEMENTS OF T-L-C .. TIME .. LOCATION AND CONDITION.

TIME IS THE TIME OF OBSERVATION OF THE EVENT. ACCURATE TIME IS CRITICAL. IF YOU ARE UNSURE OR DON'T KNOW, SAY "TIME ESTIMATED" OR "TIME UNKNOWN".

LOCATION IS THE EXACT LOCATION OF THE EVENT. USE STREET NAMES OR HIGHWAY NUMBERS TOGETHER WITH THE NAME OF THE COUNTY.

YOU SHOULD ALSO SPECIFY THE SOURCE OF YOUR REPORT IF OTHER THAN YOUR PERSONAL OBSERVATION.

CONDITION IS ONE OF THE FIVE SEVERE WEATHER EVENTS JUST MENTIONED.

THIS IS _____ NET CONTROL.
(your call)

4.203 SEVERE WEATHER NET
SEVERE WEATHER REPORT CRITERIA

ATTENTION, ALL STATIONS.

THIS IS _____ NET CONTROL.
(your call)

A SEVERE WEATHER NET IS NOW IN PROGRESS. ONLY STATIONS WITH ONE OF THE FIVE SEVERE WEATHER EVENTS OR EMERGENCY TRAFFIC SHOULD BREAK INTO THIS NET.

THE FIVE SEVERE WEATHER EVENTS ARE TORNADOES ON THE GROUND .. FUNNEL CLOUDS ALOFT .. HAIL (ONE-HALF INCH OR LARGER) .. WINDS IN EXCESS OF FIFTY-FIVE MILES AN HOUR, SUCH WINDS WILL CAUSE STRUCTURAL DAMAGE, LARGE BRANCHES TO BREAK AND WILL MAKE WALKING VERY DIFFICULT (UNLESS YOU HAVE AN ANEMOMETER, QUALIFY YOUR REPORT WITH THE WORD "ESTIMATED") .. FLOODING AND OTHER ACTUAL STORM DAMAGE.

ANY REPORT NOT MEETING ONE OR MORE OF THESE CRITERIA SHOULD NOT BE PASSED UNLESS SPECIFICALLY REQUESTED BY NET CONTROL OR MILWAUKEE WEATHER.

THIS IS _____ NET CONTROL.
(your call)

4.204 SEVERE WEATHER NET REPORTING PROCEDURE

ATTENTION, ALL STATIONS.

THIS IS _____ NET CONTROL.
(your call)

BECAUSE MANY REPORTS MAY HAVE TO BE PASSED AND THAT TIME IS CRITICAL .. THE FOLLOWING PROCEDURE WILL BE FOLLOWED:

- CALL NCS GIVING YOUR CALL IN STANDARD PHONETICS FOLLOWED BY A ONE OR TWO-WORD REPORT OF THE SEVERE WEATHER OBSERVED -- FOR EXAMPLE, "W9XYZ 3/4" "HAIL"

- NCS WILL SAY "GO AHEAD"

- TRANSMIT THE BALANCE OF YOUR REPORT AT SLOW DICTATION SPEED -- FOR EXAMPLE "AT 4:35 P.M., HIGHWAY 20 AND HIGHWAY 36, NEAR WATERFORD IN RACINE COUNTY 3/4" HAIL"

- NCS WILL RESPOND WITH "ROGER" OR WILL ASK FOR A FILL IF NECESSARY.

- MILWAUKEE WEATHER WILL ALSO "ROGER"

THIS COMPLETES THE EXCHANGE. NO FURTHER CALL SIGNS, PROWORDS OR OTHER TRANSMISSION IS NECESSARY OR NEEDED.

IF FURTHER INFORMATION BECOMES AVAILABLE AFTER THE INITIAL REPORT, THE REPORTING STATION WILL CALL NCS USING HIS CALL SIGN IN PHONETICS FOLLOWED BY THE WORD "FOLLOWUP". UPON ACKNOWLEDGEMENT BY NCS THE STATION WILL CONTINUE BEGINNING WITH "REFERENCE MY REPORT OF HAIL AT 4:35" AND WILL COMPLETE HIS FOLLOWUP REPORT.

THIS IS _____ NET CONTROL.
(your call)

4.205 SEVERE WEATHER NET CONTINUITY ANNOUNCEMENT

ATTENTION, ALL STATIONS.

THIS IS _____ NET CONTROL STATION FOR THE
(your call)
MILWAUKEE WAUKESHA A R E S. A SEVERE WEATHER NET IS IN PROGRESS AT THIS TIME. PLEASE MONITOR BUT DO NOT BREAK INTO THIS NET UNLESS YOU HAVE EMERGENCY TRAFFIC OR REPORTS OF SEVERE WEATHER EVENTS. THE CRITERIA AND FORMAT FOR A SEVERE WEATHER REPORT WILL BE ANNOUNCED SHORTLY.

THIS IS _____ NET CONTROL.
(your call)

4.206 SEVERE WEATHER NET
TO SECURE THE NET

ATTENTION, ALL STATIONS.

THIS IS _____ NET CONTROL STATION FOR THE
(your call)

MILWAUKEE WAUKESHA A R E S.

I WISH TO THANK ALL STATIONS FOR THEIR PARTICIPATION IN THIS SEVERE WEATHER NET. YOUR HELP WAS GREATLY APPRECIATED.

THIS NET IS SECURED AT _____ LOCAL TIME.
(time)

THIS IS _____ CLEAR.
(your call)

SHERIFF

PROCEDURES GUIDE

1.) Access: During normal business hours enter through the Emergency Government Office: Enter the Safety Building from MacArthur Square, turn right and follow the signs to Emergency Government. Alternative access is through the ground level of MacArthur Square parking garage. Enter parking structure at northern entrance from 9th Street and look for a green door marked "Safety Building" about 50 feet from the entrance on your left. If you enter from Seventh Street, go up one level to green level. Enter, proceed 30 feet through a corridor, proceed through the unmarked door, turn right down the corridor, and go down a short staircase. Proceed along a corridor to a brown door marked "Authorized Personnel Only" directly in front of you. Enter, proceed about 10 feet and buzz the communications room through a call box located at shoulder height on the right hand wall. They will buzz to unlock door.

2.) After 6:00 p.m. the Emergency Government doors are usually locked as are the doors to the MacArthur Square parking area. Access after 6:00 p.m. and on weekends is via the MacArthur Square entrance. Log in with the security guard and take the right hand elevator down. Exit the elevator turn left, go down several stairs and proceed to the door marked "Authorized Personnel Only". Identify yourself as explained above and follow instructions.

Identification may be requested by the Sheriff's deputy. Display your ARES membership card, your AREC, Inc., photo ID card, FCC License and drivers license or your ID card issued by the sheriff's department. If confirmation of identity is required, request assistance from the EC by radio or telephone.

3.) Operating Position: After being admitted, turn left and proceed to the first small desk against the far wall. Desk has a black telephone with a speaker and volume control and is marked AREC. A head set with boom mike is available in the desk. A foot switch is on the floor. The hand set is activated when removed from the cradle - push switch in handle to transmit. Handset must be off hook to use headset.

4.) Check in with Tom Piotrowski (Sheriff's Department), Sheriff's Department and Emergency Government personnel so that they know who you are and the purpose for your being there.

5.) Log in on log located in the desk. Use IBM cards to pass traffic to Sheriff. Ignore irrelevant spaces. Write on front or back. Log all outgoing transmissions on make-up log sheet (use yellow pad in desk drawer).

RED CROSS

PROCEDURES GUIDE

1.) Activation of the Red Cross facility will occur only at the request of the Red Cross. Situations likely to cause activation include a tornado touchdown in Milwaukee County or a very serious situation in one of the surrounding counties which requires mutual assistance from the Milwaukee Chapter.

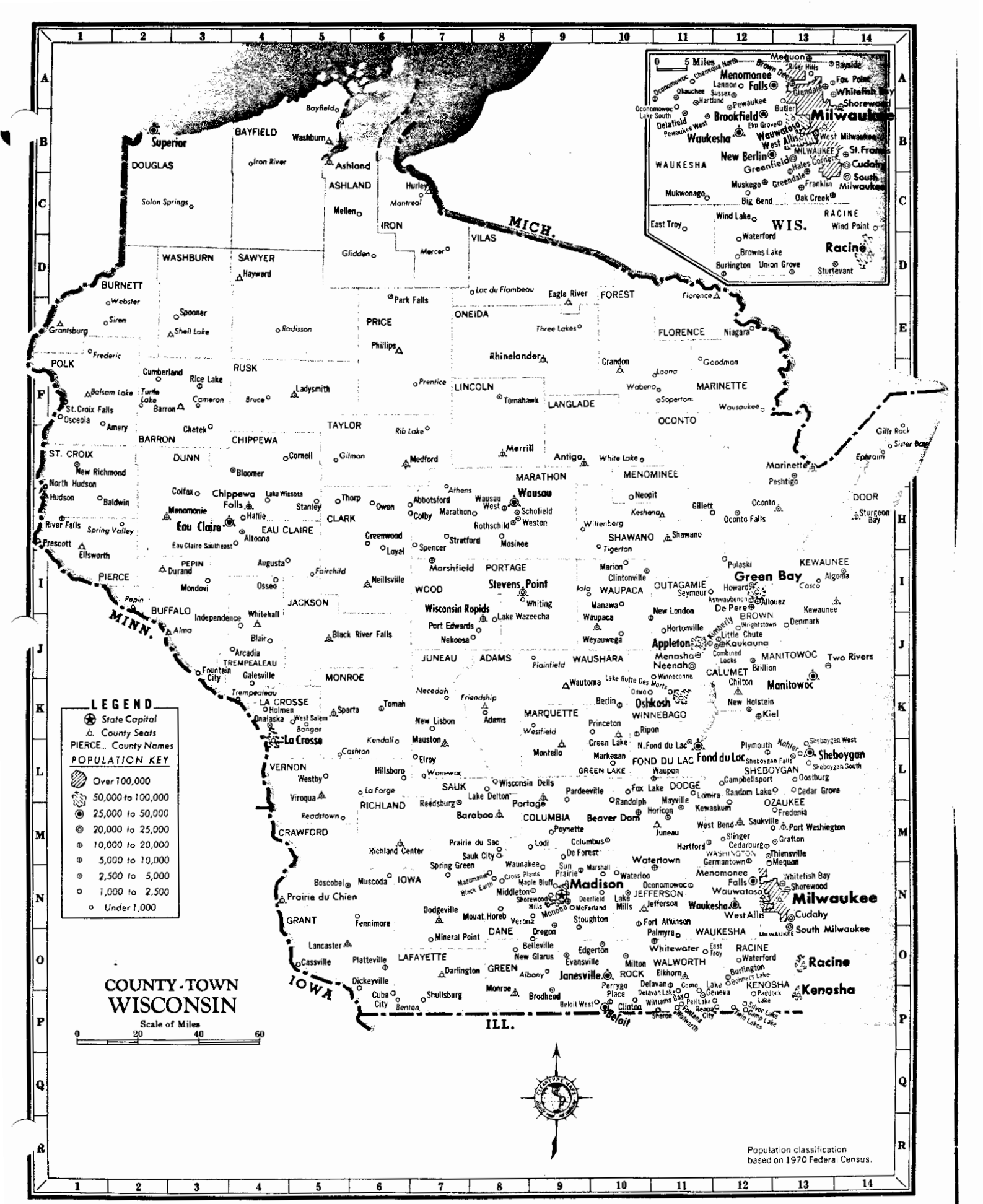
2.) The Chapter headquarters is located at the corner of Wisconsin Avenue and 26th Street. There is parking behind the building. The radio room is in the basement (key available at the security desk).

3.) The radio room is equipped with a remote base (check instructions at the site or see W9ATK regarding activation) and multiple coax feeds to the roof for use with radios. It is anticipated that a permanent packet radio system will be operational as well.

4.) Since the EOC is located on the second floor of the building, a decision will have to be made as to whether to place radios on the second floor or man the radio room and relay from the second floor to the radio room. This decision will turn on the nature and extent of the disaster and the number of ARES personnel available.

5.) Check in with Red Cross personnel to see what their needs are. Possible duties include communications to disaster assessment teams in the field and emergency shelters.

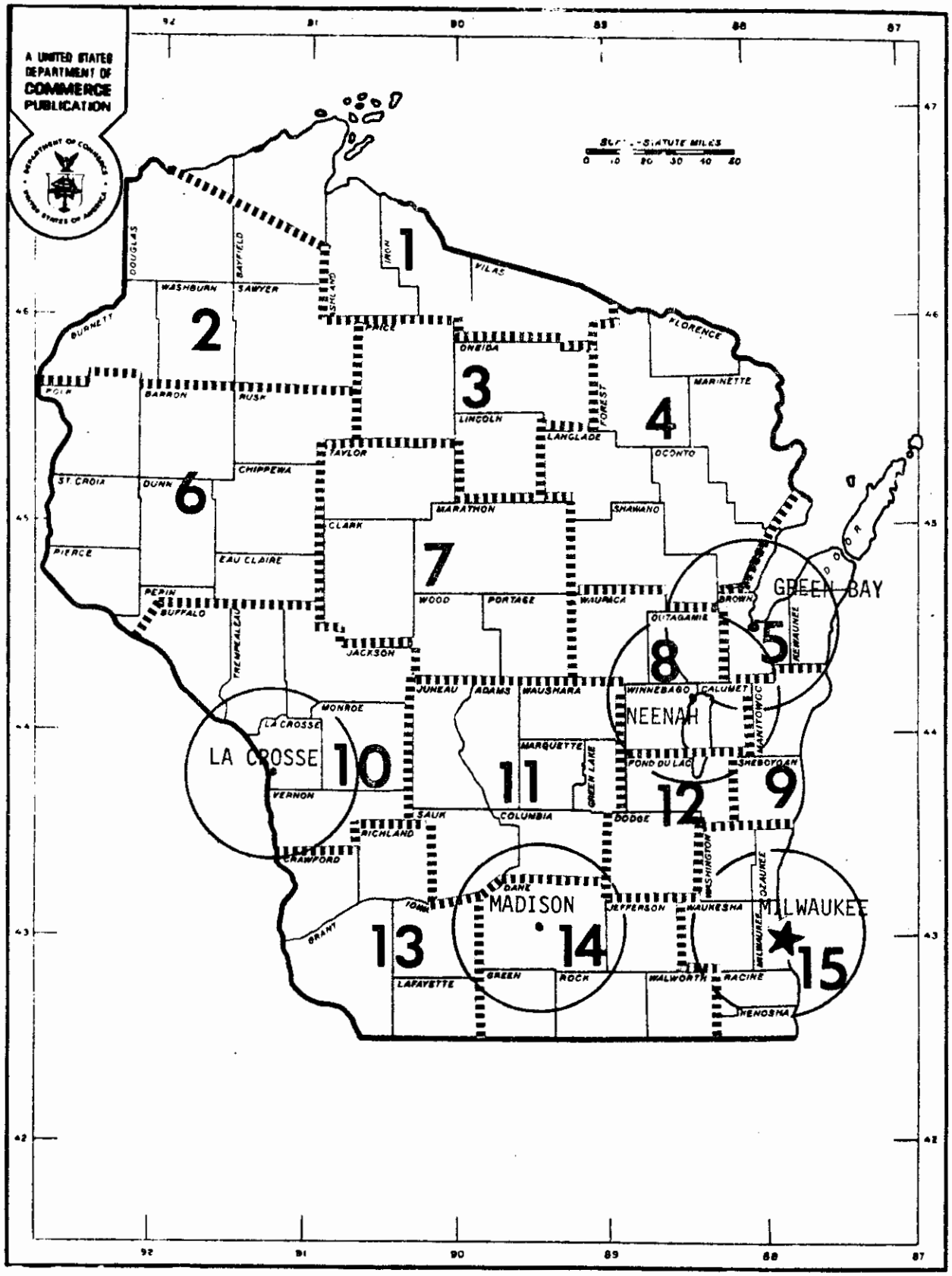
6.) Secure operations when advised by Red Cross leadership.


COUNTY-TOWN
WISCONSIN
Scale of Miles
0 20 40 60
LEGEND
State Capital
County Seats
PIERCE... County Names
POPULATION KEY
Over 100,000
50,000 to 100,000
25,000 to 50,000
20,000 to 25,000
10,000 to 20,000
5,000 to 10,000
2,500 to 5,000
1,000 to 2,500
Under 1,000
Population classification based on 1970 Federal Census.
MICH.
MINN.
IOWA
ILL.
WIS.
Superior
Ashland
Hurley
Park Falls
Eagle River
Florence
Rhinelander
Wausau
Merrill
Antigo
Marinette
Menominee
Green Bay
Sturgeon Bay
Oconto
Oconto Falls
Peshtigo
Gills Rock
Sister Bay
Ephraim
Algoma
Kewaunee
Casco
Sheboygan
Fond du Lac
Oshkosh
Manitowoc
Two Rivers
Kiel
New Holstein
Plymouth
Sheboygan Falls
Sheboygan South
Port Washington
Cedarburg
Grafton
Thiensville
Mequon
Whitefish Bay
Shorewood
Milwaukee
Wauwatosa
West Allis
West Milwaukee
Cudahy
South Milwaukee
St. Francis
Oak Creek
Franklin
Greenfield
New Berlin
Brookfield
Waukesha
Menomonee Falls
Racine
Wind Point
Sturtevant
Burlington
Union Grove
Kenosha
Paddock Lake
Silver Lake
Twin Lakes
Genoa City
Fontana
Walworth
Williams Bay
Delavan
Elkhorn
Whitewater
Janesville
Beloit
Madison
Watertown
Portage
Wisconsin Dells
Baraboo
Reedsburg
Richland Center
Prairie du Chien
Boscobel
Muscoda
Dodgeville
Mineral Point
Platteville
Lancaster
Cassville
Dickeyville
Shullsburg
Monroe
Brodhead
Darlington
New Glarus
Monticello
Belleville
Oregon
Verona
Mount Horeb
Middleton
Sauk City
Prairie du Sac
Spring Green
Lone Rock
Black Earth
Mazomanie
Cross Plains
Maple Bluff
Shorewood Hills
Deerfield
McFarland
Monona
Stoughton
Fort Atkinson
Palmyra
Jefferson
Lake Mills
Waterloo
Juneau
Beaver Dam
Columbus
Lodi
Poynette
Portage
Pardeeville
Wisconsin Dells
Lake Delton
Reedsburg
Baraboo
Sauk City
De Forest
Sun Prairie
Marshall
Waunakee
Cross Plains
Maple Bluff
Middleton
Shorewood Hills
Deerfield
McFarland
Monona
Stoughton
Verona
Mount Horeb
Dodgeville
Mineral Point
Dodgeville
Fennimore
Boscobel
Muscoda
Prairie du Chien
Richland Center
Spring Green
Lone Rock
Black Earth
Mazomanie
Cross Plains
Maple Bluff
Shorewood Hills
Deerfield
McFarland
Monona
Stoughton
Verona
Mount Horeb
Dodgeville
Mineral Point
Platteville
Lancaster
Cassville
Dickeyville
Shullsburg
Monroe
Brodhead
Darlington
New Glarus
Monticello
Belleville
Oregon
Verona
Mount Horeb
Middleton
Sauk City
Prairie du Sac

NWS - Wisconsin Zones

ZONE 1 ...	DOUGLAS	BAYFIELD	ASHLAND	IRON	VILAS	
ZONE 2 ...	DOUGLAS	BAYFIELD	BURNETT	WASHBURN	SAWYER	
ZONE 3 ...	PRICE	ONEIDA	LINCOLN			
ZONE 4 ...	FOREST	FLORENCE	MARINETTE	LANGLADE	OCONTO	SHAWANO
ZONE 5 ...	BROWN	DOOR	KEWAUNEE			
ZONE 6 ...	POLK	BARRON	RUSK	ST CROIX	DUNN	CHIPPEWA
	PEPIN	EAU CLAIRE				PIERCE
ZONE 7 ...	TAYLOR	MARATHON	CLARK	WOOD	PORTAGE	
ZONE 8 ...	WAUPACA	OUTAGAMIE	WINNEBAGO	CALUMET		
ZONE 9 ...	MANITOWOC	SHEBOYGAN				
ZONE 10 ...	BUFFALO	TREMPELEAU	JACKSON	LA CROSSE	MONROE	VERNON
ZONE 11 ...	JUNEAU	ADAMS	WAUSHARA	MARQUETTE	GREEN LAKE	SAUK
	COLUMBIA					
ZONE 12 ...	FOND DU LAC	DODGE				
ZONE 13 ...	RICHLAND	CRAWFORD	GRANT	IOWA	LAFAYETTE	
ZONE 14 ...	DANE	JEFFERSON	GREEN	ROCK	WALWORTH	
ZONE 15 ...	MILWAUKEE	WASHINGTON	OZAUKEE	WAUKESHA	RACINE	KENOSHA

MAP OF NOAA NATIONAL WEATHER SERVICE'S
PUBLIC FORECAST ZONES
FOR THE STATE OF WISCONSIN



SEVERE WEATHER LOG OF NET CONTROL STATION:_____

Date_____ Watch #_____ Time: Set_____ Secured_____

Operators Assigned:

k-up Operator	Weather Service	Sheriff Dept.	Emergency Govt.	Red Cross

Symbols: T - Thunder Storm R - Rain TO - Tornado HR - Heavy Rai
H - Hail HW - High Winds FC - Funnel Cloud

Time	Call	Exact Location	Time and Report of Observations

FOUR BASIC WINTER STORM TYPES AND THEIR BEHAVIOR

Because weather of any consequence is always associated with low pressure centers and so-called "cold and warm fronts", many observers tend to miss the significance of the high pressure centers, which, in fact, dominate the speed and direction of movement of all weather systems.

Another vital factor, seldom mentioned, is the so-called jet stream; a high altitude, high velocity stream of air which flows from the tropics toward the poles, is cooled, flows back again, is warmed, and repeats the trip, in an undulating pattern around the entire globe.

The first of the four storm types, and the one that has greatest potential for heavy snow in Wisconsin, comes from the Texas or Oklahoma panhandle. The panhandle storm typically comes across the Rockies through Colorado, and moves southeast into the panhandle area, where it may stall for some time, during which it picks up heat and moisture from the Gulf of Mexico until it is again a full blown storm. The storm then moves out in a Northeast or East-Northeasterly direction toward the Great Lakes area. Speed picks up to an average of 28 to 33 MPH.

Storm intensity is typically greatly increased if there is a high pressure center located just North or East of Lake Superior. Counterclockwise flow of warm, moist air from the panhandle storm (low) encounters the clockwise flow of cold dry air from the Lake Superior high, and the result is heavy snow along the line of convergence.

A panhandle storm is typically big; covering most of Central U.S., and will often generate every type of weather; rain, hail, freezing rain, sleet and snow. While it is dumping snow in Wisconsin, it may generate thunderstorms in Arkansas, and even spawn a tornado. In Wisconsin, it is not unusual to encounter lightning and thunder during a heavy snowstorm.

From National Weather Service data, the heaviest snow occurs from 100 to 160 miles North or East-Northeast of the storm center. Also heaviest snow occurs when the surface temperature is between 29 and 34 degrees.

Panhandle storms usually follow a well defined, slightly curved path, and a fair idea of their behavior can be obtained by following them either by weather maps in daily papers, or sketching from the TV maps. However, some TV maps are very poor, and should be checked against the newspaper maps for a time, to make sure they are reliable.

Moisture content of panhandle storms is high; typically one inch of water to eight inches of snow. Snow will often begin with wind in the Southeast, and will continue until the wind backs around through East, and Northeast, and then diminish to flurries when the wind comes around to the North-northwest.

Panhandle storms often begin with rain, progressing through freezing rain, sleet, and then to heavy snow. Needless to say, the panhandle is the most dangerous winter storm for Wisconsin.

The second most common storm affecting Wisconsin begins in Alberta or Western Saskatchewan, moves down across the Dakotas, and curves East, at speeds up to 60 MPH. Snow from this type of storm is usually light and fluffy, with about 1 inch of water to 20 inches of snow. After curving easterly the Alberta type slows to 25 or 30 MPH., and often dissipates East and Southeast of the Great Lakes.

The Alberta type often forms soon after a panhandle type has gone through. Snowfall is usually of shorter duration, due to the speed of the storm. High winds can cause much drifting, and extreme cold can follow this type.

The third type of storm originates in the Mississippi River delta region, taking a curved path bowed slightly to the East, in a generally Northern direction. Again, heaviest snow occurs 100 to 160 miles from the storm center, but to the West. When the delta storm moves up the center of Lake Michigan, some part of Wisconsin is clobbered.

Snow from the delta type storm is very wet -- typically 1 inch of water to 6 inches of snow. Rain is always a distinct possibility with the delta storm because of the very warm air associated with it. Winds tend to be moderate, but the storm itself may move rapidly, from 35 to 45 MPH.

The fourth type originates on the Eastern slope of the Rockies; typically in Southeastern Wyoming or Northern Colorado, and follows a wobbly, veering path Eastward. The Westerly storm wanders about primarily because it is usually a trough between two high pressures areas, and vacillates along the path of lowers pressure. This type of storm is very difficult to forecast.

This type tends to dump a lot of snow West of the Mississippi, but snowfall diminishes rapidly East of the River. Water content is low; typically, 1 inch of water to 12-15 inches of snow.

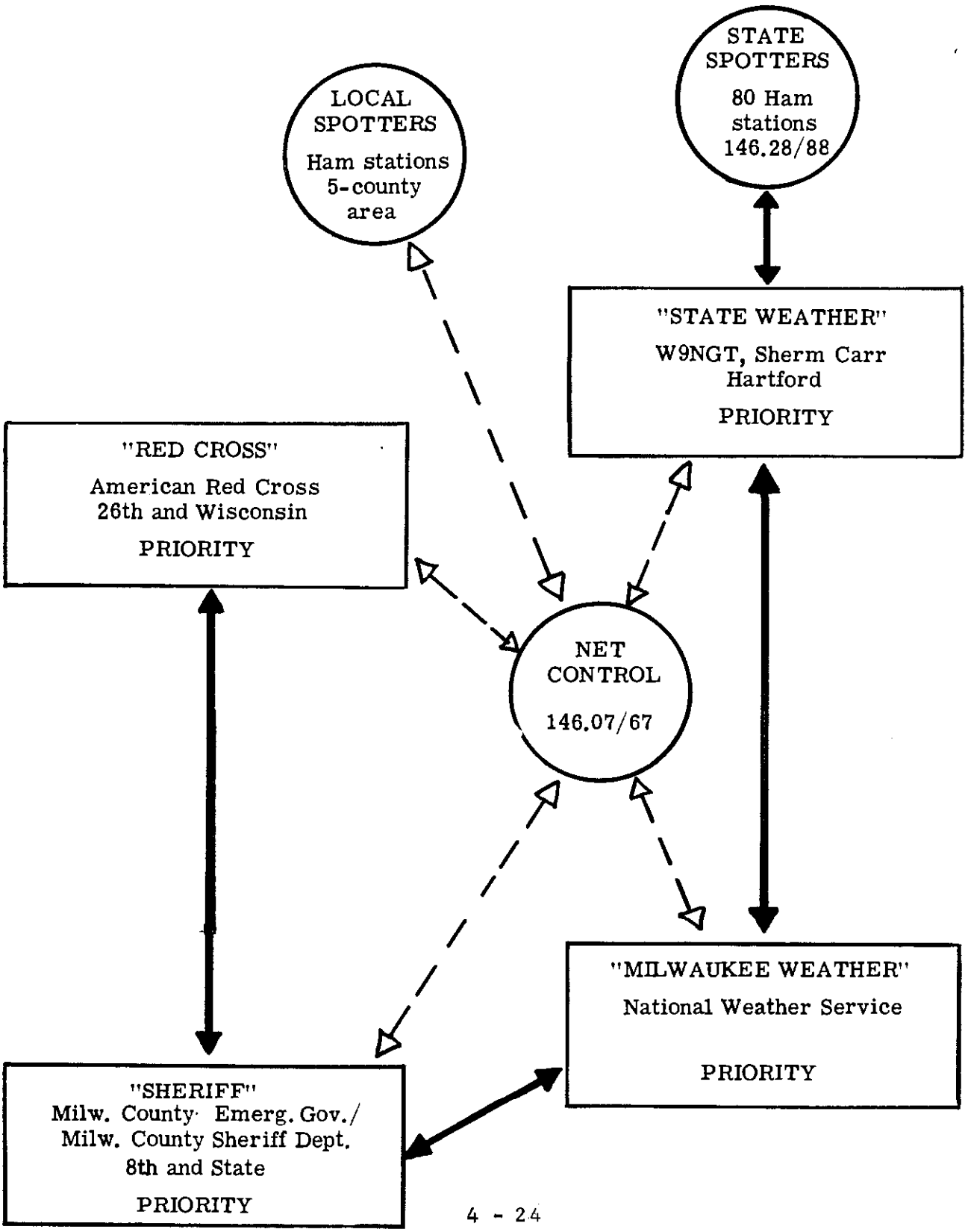
There are many variations of the above storm types. No two are alike. However, those depicted are typical, and their characteristics can often be noted in other types, and some may combine some salient features. The weird and strange behavior of some winter storms can often be attributed to and unusual origination, or a sudden shift of a dominating high pressure center. Consistent observation of winter storms for a period of time will show a very definite trend in behavior patterns. Certain it is that study of winter storms will certainly enhance the service we offer, and at the same time, benefit ourselves, like, when to go somewhere, or when it is very smart to stay home.

AMATEUR RADIO EMERGENCY SERVICE

MILWAUKEE COUNTY, WISCONSIN

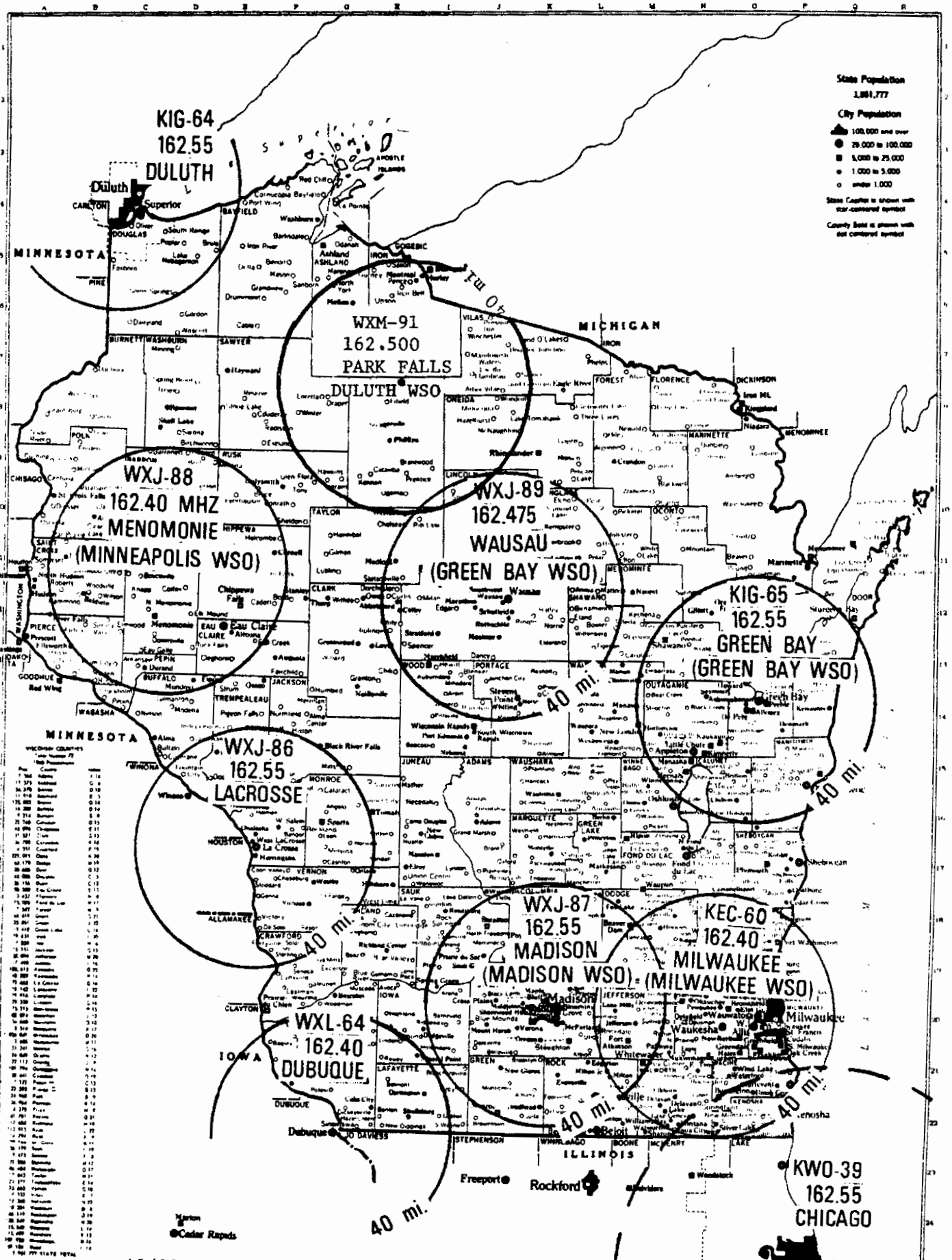
A R E S Repeater: 146.07/67 MHz

SEVERE WEATHER COMMUNICATION SYSTEM



12/84

WISCONSIN NOAA WEATHER RADIO



5.000 DISASTER PLAN

5.100 SCOPE: This plan provides guidelines for providing communications following a disaster.

5.200 GENERAL

5.210 Geographically Confined Disaster: One which encompasses limi ted area, up to several city blocks. Although the actual disaster site will be confined, communications may be required at one or more remote sites such as hospitals, shelters, etc.

5.220 Large Area Disaster: One encompassing a large geographical area, possibly the entire county, or more.

5.230 Net Control Station (NCS): A station will be appointed by the Emergency Coordinator (EC) or his designee to maintain control over all net operations including the keeping of accurate logs and copying of all net traffic.

5.231 If communications are on a simplex frequency, the NCS shall also guard the repeater input frequency (146.07MHz) to prevent interference from stations not involved in the disaster, and to allow use of the input frequency as alternate priority channel.

5.232 The NCS should be located in close proximity to the disaster site for possible simplex communications, but should not be located within the geographical boundaries of the disaster.

5.233 The NCS should be to the extent possible, self sustaining with respect to electrical power, man power, ARES and commercial communications and life support.

5.240 Backup Net Control Station (BNCS): A station designated by the NCS to be available to take over as NC should that become necessary.

5.241 The BNCS should copy all traffic, maintain accurate logs and fulfill all other pre-requisites for net control.

5.250 Staging Area: A geographical location which has been designated as a meeting point for stations involved with the disaster situation. Staging areas should have large parking lots and easy access to major streets and highways.

5.251 Several potential staging areas are identified in this plan, but other staging areas may be designated for a given disaster situation by the EC or NCS.

5.260 Staging Area Command Post (CP): A station designated by the EC, or the NCS to assume responsibility for operations at a staging area.

5.261 The CP shall maintain a list of available stations and equipment at his staging area and record movements to and from his staging area.

5.262 The CP should as much as possible be self supporting.

5.270 On Scene Command Post (CP): A station designated by the EC or NCS to coordinate all communications in and out of the immediate disaster site.

5.271 The on scene CP should be located in close proximity to the disaster site for possible simplex communication but should not be located within the geographical boundaries of the disaster. If possible the on scene CP should be co-located with other emergency service command posts (police, fire, etc.).

5.272 Portable stations operating within the disaster site should communicate with each other and the on scene CP on simplex.

5.273 The on scene CP shall coordinate with other ARES communications centers on matters affecting the disaster site.

5.300 DISASTER PLAN ACTIVATION

5.301 Activation of this disaster plan shall be by the EC or his designee upon request of one or more client agencies.

5.302 Agencies for which ARES provides communications support include:

Milwaukee County Emergency Government
Milwaukee County Sheriff's Department
National Weather Service
Red Cross
Waukesha County/City Emergency Government

5.303 In addition, the EC or his designee may activate the disaster plan on his own authority in anticipation of a request for emergency communications by a client agency when it is apparent that an emergency situation exists or is imminent.

5.400 ARES MEMBER ACTIVITIES:

5.401 During a disaster situation, individual members available for assignment will be identified by the NCS and assigned as necessary.

5.402 ARES volunteers may be assigned directly to the disaster site or to a staging area by the NCS. If assigned to the disaster site, volunteers should check in, in person, with the on scene CP. Do not use the radio for this type of check in.

5.403 All ARES volunteers assigned either to the disaster site or to a staging area should have in their possession ARES identification cards and ARRL Emergency Service identification patch. Other identification may be required and supplied.

5.404 In order to avoid the added confusion of unnecessary and unauthorized personnel on the scene, only those volunteers directly assigned to the disaster site or staging areas should go there.

5.410 Once at the disaster site, individual ARES members should identify themselves to the on scene CP for assignment.

5.411 All volunteers should be equipped with portable radios capable of operation both on 146.07/.67 and 146.67/.67MHz. Members should also have available mobile units, magnetic mount antennas and batteries. See chapter 10 for a more complete list.

5.412 ARES members may be asked to provide communications between the disaster site and support sites such as hospitals, staging areas or client agency command centers. All such traffic must be authenticated by the agency official who originates the message and takes responsibility for it. All traffic must be routed through NCS. Always indicate precedence.

5.413 In all instances the mission of ARES is to provide communications support to client agencies. ARES members should undertake no actions other than this primary mission unless specifically requested by the client agency. Communications is our only job, not fire fighting, law enforcement, first aid or anything else. Clear all non-communications assignments with the EC.

5.420 While a disaster situation may require the taking of certain calculated risks in order to accomplish the mission, ARES members are responsible for their own safety and should take no action that places them in personal jeopardy. In a questionable situation, pull back and report your situation to the NCS.

5.500 DISASTER COMMUNICATIONS GUIDELINES:

5.510 In any disaster situation it will be necessary for the EC, his designee or NCS to evaluate the physical layout of the disaster site or sites and their relationship to other sites where ARES communications will be required.

5.520 In a geographically confined disaster, where all sites requiring communications are relatively close together, communications between them should be on 146.67MHz simplex. The repeater input, 146.07MHz should be considered a priority channel and will be guarded by the NCS.

5.521 In this eventuality, the repeater may be disabled or configured as a remote base, whichever is most advantageous to the mission.

5.530 In large area disasters, or where simplex communications are not reliable, some combination of simplex and repeater operation will be necessary.

5.531 If the disaster site cannot be adequately covered by simplex communications and the ARES repeater cannot be used, a portable repeater is available to provide local area communications on 146.07/.67MHz.

5.540 In the event local area simplex is used, a CP will be established to coordinate with other ARES communications centers via repeater or other primary frequency.

5.550 In the event several sites are using simplex communications and interference between sites is experienced or anticipated, 146.52 and 146.55 MHz may be used as alternate simplex frequencies. Other area repeaters may be used provided agreements for use are made with the control operator on affected systems. Whenever possible, coordination between ARES communication centers should be made on the primary frequency.

5.560 Whenever possible, all formal traffic should be written. Automatic taping of repeater transmissions should be initiated at the onset of the emergency.

5.600 MOBILIZATION OF ARES MEMBERS

5.601 As soon as the need or impending need for movements of ARES members becomes apparent, the EC, his designee, or the NCS should activate one or more staging areas as necessary to provide a gathering point for incoming ARES personnel.

5.602 As personnel are required, they may be moved from the staging area(s) using a minimum number of vehicles to avoid further congestion at the disaster site.

5.603 The use of staging areas also provides ARES management personnel with definite numbers of people and equipment available.

5.604 East staging area activated will be assigned a command post station.

5.610 The following is a list of suggested staging areas to be used in the event of a disaster plan activation. However, the EC, his designee, or the NCS may designate other areas as staging areas as deemed necessary for individual disaster situations.

5.611 Southwest: K-Mart Shopping Center, Highway 100 (S. 108th St.) and Grange Avenue, Hales Corners.

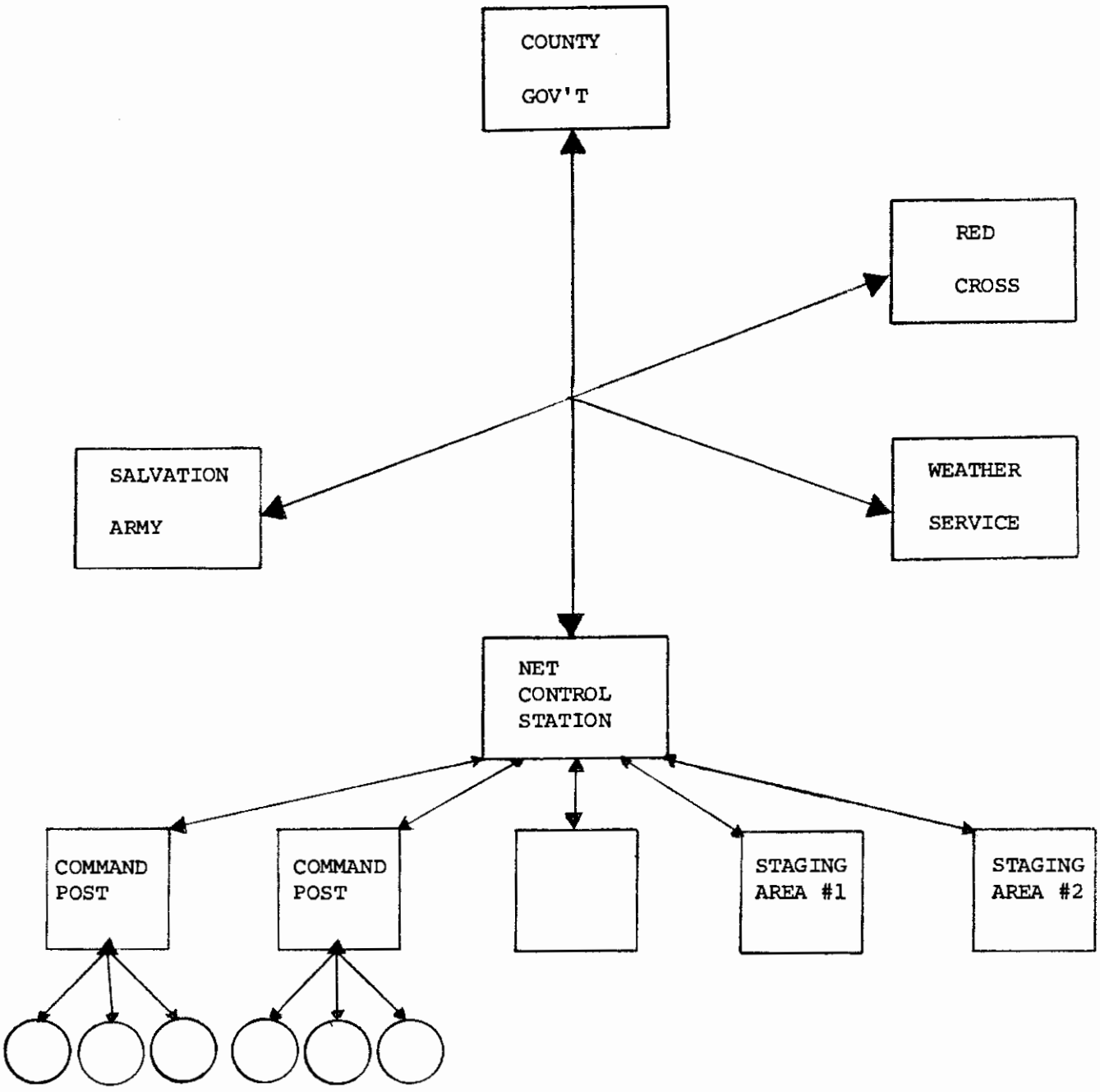
5.612 West: Mayfair Shopping Center, Highway 100 and North Avenue, Wauwatosa.

5.613 North: Northridge Shopping Center, Brown Deer Road (Highway 100) and North 76 Street (Highway 181), Milwaukee.

5.614 Northeast: Bayshore Shopping Center, Port Washington Road and Silver Spring Drive, Glendale.

5.615 Southeast: Skyway Cinema, Howell Avenue and Layton Avenue, Milwaukee.

5.620 Equipment and/or identification materials may be issued from the ARES kit to members for use during an operation. These materials must be receipted for and must be returned when the operation is secured or earlier if required.



= Primary Station - may call any other Primary Station without going thru Net Control Station.

= Portables/Mobiles engaged in actual support of disaster rescue or relief operation. Must call Net Control to pass traffic.

12/7/88

ASSEMBLY POINT ROSTER

Activity_____ Date_____

Assembly Point Control Operator_____Location_____

Call	Time In	Time Out	Assigned To

ON-DUTY ROSTER

Activity _____ Date _____ Location _____

Post No. _____

Call	Time In	Time Out	Remarks

Post No. _____

Call	Time In	Time Out	Remarks

Post No. _____

Call	Time In	Time Out	Remarks

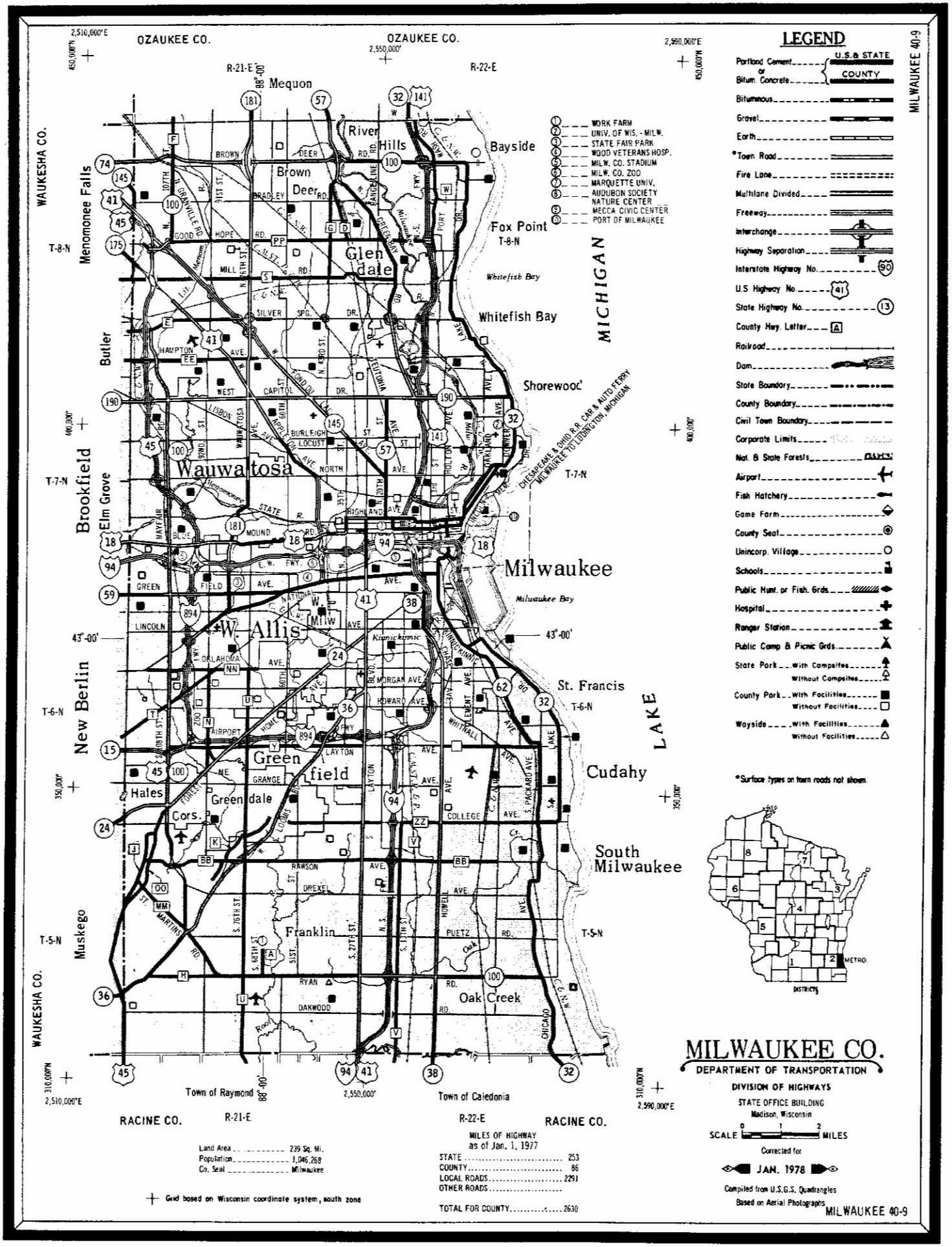
Post No. _____

Call	Time In	Time Out	Remarks

LOG OF OPERATIONS: _____ Date _____
Name of Activity

Operator _____ Location _____
Call and Signature Call and Location

Time	Call	Traffic



LEGEND

- Portland Cement or Bitum. Concrete — U.S. & STATE / COUNTY
- Bituminous
- Gravel
- Earth
- *Town Road
- Fire Lane
- Multilane Divided
- Freeway
- Interchange
- Highway Separation
- Interstate Highway No.
- U.S Highway No.
- State Highway No.
- County Hwy. Letter
- Railroad
- Dam
- State Boundary
- County Boundary
- Civil Town Boundary
- Corporate Limits
- Nat. & State Forests
- Airport
- Fish Hatchery
- Game Farm
- County Seat
- Unincorp. Village
- Schools
- Public Hunt. or Fish. Grds.
- Hospital
- Ranger Station
- Public Camp & Picnic Grds.
- State Park — With Campsites / Without Campsites
- County Park — With Facilities / Without Facilities
- Wayside — With Facilities / Without Facilities

1. WORK FARM
2. UNIV. OF WIS. - MILW.
3. STATE FAIR PARK
4. WOOD VETERANS HOSP.
5. MILW. CO. STADIUM
6. MILW. CO. ZOO
7. MARQUETTE UNIV.
8. AUDUBON SOCIETY NATURE CENTER
9. MECCA CIVIC CENTER
10. PORT OF MILWAUKEE

*Surface types on town roads not shown.

MILWAUKEE CO.

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

STATE OFFICE BUILDING

Madison, Wisconsin

SCALE 0 1 2 MILES

Corrected for

JAN. 1978

Compiled from U.S.G.S. Quadrangles

Based on Aerial Photographs

MILWAUKEE 40-9

Land Area ..... 239 Sq. Mi.
Population 1,046,268
Co. Seat ..... Milwaukee

Grid based on Wisconsin coordinate system, south zone

MILES OF HIGHWAY as of Jan. 1, 1977

STATE	253
COUNTY	86
LOCAL ROADS	2291
OTHER ROADS	
TOTAL FOR COUNTY	2630

STANDARD ARRL MESSAGE FORMAT

I. The message consists of the following parts:

A. Preamble
B. Addressee
C. Text
D. Signature
E. Handling information

II. The Preamble

A. Message Number - This is a number assigned to each message by the originating station.

B. Precedence - Please observe the following precedences with traffic.

1. Emergency - Any message having life and death urgency to any person or group of persons, which is transmitted by amateur radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. On CW/RTTY this designation will always be spelled out.

2. Priority - Use abbreviation P on CW/RTTY. This classification is for important message having a specific time limit and official messages not covered in the emergency category and press dispatches and emergency related traffic not of the utmost urgency and notice of death or injury in a disaster area, personal or official.

3. Welfare - This classification, abbreviated as W on CW/RTTY, refers to either an inquiry as to the health and welfare of an individual in the disaster area or the reply to such an inquiry that indicates all is well. Welfare traffic is cleared/handled only after all emergency and priority traffic has been cleared. The Red Cross equivalent to an incoming welfare message is DWI (Disaster Welfare Inquiry).

4. Routine - Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine (R on CW/RTTY) should be handled last or not al all when circuits are busy with higher priority traffic. Most traffic handled on Amateur circuits in normal times will fall into this category.

C. Handling Instructions - This 3 letter code tells operators handling your message through NTS any special instructions you may request. These instructions are optional at the originating station.

1. HXA - Followed by a number - collect land line call authorized by addressee with _____ miles. Mileage unlimited if no number.

2. HXB - Followed by a number - cancel message if not delivered with in _____ hours of filing time. Originate service message back to station of origin.

3. HXC - Report to

7. LIAISON WITH SURROUNDING COUNTIES

7.1 It is probable that in the event of a disaster which is extensive in area or duration, local ARES resources will be insufficient. For that reason, the Milwaukee County ARES has established, and maintains, mutual assistance agreements with the surrounding counties.

7.2 In the event Milwaukee/Waukesha County ARES resources are insufficient to handle the communications requirements of a local emergency, the EC or his designate will proceed as follows:

7.2.1 Obtain permission from proper civil authority to request assistance from outside the county. If approval is granted, he will ascertain any limitations to be set as to numbers, identification, route to be travelled, assembly areas, and assignments.

7.2.2 Initiate request for assistance via most direct means available to adjacent county or counties. Request should also contain outline of nature of emergency, special talents or equipment needed, extent of identifying information necessary as to persons who are being sent to assist, anticipated duration of need, route or routes of travel and assembly point.

7.2.3 Assign Assistant EC or other responsible person to meet incoming volunteers at the assembly point, verify identification and issue passes, conduct a briefing, and dispatch the personnel to their assignments.

7.3 In the event Milwaukee/Waukesha County ARES is requested to supply personnel to assist during an emergency in another county, the EC will proceed as follows:

7.3.1 Initiate a directed net (and telephone call-up if necessary) for the purpose of advising members of the nature of the request and drawing up a list of volunteers. The list should contain name, call, address (if not on current ARES roster), and automobile license plate number. Additional identifying information may be required by the host county and probably can be best obtained at staging. The net should also be advised as to equipment of supplies to bring, the estimated duration of the operation and the location of the assembly point to be used for staging prior to departure from the county.

7.3.2 The list of volunteers will be sent ahead to the host county by the most direct means available.

7.3.3 All volunteers will assemble at a designated assembly point. An Assistant EC or other person appointed by the EC will log in the volunteers against the list drawn up during the net, verify that the information is correct and request additional

information as necessary. He will then conduct a briefing regarding the route to be followed, the assembly point to be used in the host county and any other pertinent information or procedures.

7.3.4 The volunteers will then travel together to the host county along the designated route to the assembly point and thereupon assume the assignments made by the host.

7.4 Where liaison is not possible on 07/67, communications with other counties will be maintained on the Wisconsin net frequency 3.985 MHZ.

AMATEUR RADIO EMERGENCY CORPS, INC.

Chapter 8

1. The following pages contain copies of the Restated Articles of Incorporation, the IRS Letter Ruling and the By-Laws of the Corporation. The reproduction of the first two items is poor due to the use of a copier.

2. The corporation is tax exempt under 502 (c) (3) of the Internal Revenue Code as a public charity. Gifts of property or money to the corporation are deductible on an income tax return as gifts to charity.

3. In effect, the corporation serves as the legal entity for the ARES. It owns property, receives contributions and performs other functions that require the act of a legal "person".

4. While membership in the corporation is perforce limited, attendance at its meetings and participation in the discussions is not. In an attempt to encourage wider participation, the Board of Directors meets regularly every other month at a local restaurant. Announcement of the meeting is usually made on the weekly ARES net. The meeting date (and location) may be changed from time to time to conform to individual scheduling conflicts.

RESTATED ARTICLES OF INCORPORATION

The following Restated Articles of Incorporation duly adopted pursuant to the authority and provisions of Chapter 181 of the Wisconsin Statutes supersede and take the place of the existing articles of incorporation and amendments thereto:

Article 1. The name of the corporation shall be

AMATEUR RADIO EMERGENCY CORPS, INC.

Article 2. The period of existence shall be

Perpetual

Article 3. The purposes shall be

To support the Milwaukee County Amateur Radio Emergency Service which plans and implements programs in the community service and welfare including (but not limited to) the following:

a) Emergency preparedness planning to provide communications as necessary or feasible in support of governmental and relief organizations in the event of an emergency.
b) Support of radio amateur related activities which encourage and promote emergency preparedness.
c) Instruction and training of radio amateurs in emergency preparedness and related communication activities.
d) Encourage and organize amateur radio operator involvement in civic and community service activities.
e) Other related activities in the community interest, service or welfare.

Article 4. Location of the principal office is (Give street number, street name, city & state)

6052 West Darnel Ave.
Brown Deer, WI 53223

Article 5. Name of the registered agent is

Jack McLeland

Article 6. Address of the registered agent is
Include ZIP Code

104 W. Clovernook Lane, Milwaukee, WI 53217

Article 7.(a) ~~The number of directors may be changed by by-laws duly adopted, or~~

(b) The number of directors constituting the board shall be Nine to be chosen as provided by the by-laws.

Article 8. (Membership provisions)

The qualifications, rights, and method of acceptance of members shall be set forth in the by-laws, provided however, that in no event shall the by-laws qualify membership on the basis of race, creed, color, national origin or sex.

Article 9. These articles may be amended in the manner authorized by law at the time of amendment.

Article 10. (Other provisions)

See attached sheet.

ARTICLE ~~10~~ 11

(a) No part of the net earnings of the corporation shall inure to the benefit of, or be distributable to, its members, trustees, officers, or other private persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article Third hereof. No substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office. Notwithstanding any other provision of these articles, the corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from Federal income tax under section 501 (c)(3) of the Internal Revenue Law or (b) by a corporation, contributions to which are deductible under section 170 (c)(2) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law).

Notwithstanding any other provision of these articles, this corporation shall not, except to an insubstantial degree, engage in any activities or exercise any powers that are not in furtherance of the purposes of this corporation.

(b) Upon the dissolution of the corporation, the Board of Directors shall, after paying or making a provision for the payment of all of the liabilities of the corporation, dispose of all of the assets of the corporation exclusively for the purposes of the corporation in such manner, or to such organization or organizations organized and operated exclusively for charitable, educational, religious, or scientific purposes as shall at the time qualify as an exempt organization or organizations under section 501 (c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law), as the Board of Directors shall determine. Any such assets not so disposed of shall be disposed of by the Circuit Court of the county in which the principal office of the corporation is then located, exclusively for such purposes or to such organization or organizations, as said Court shall determine, which are organized and operated exclusively for such purposes.

11 c

STATE OF WISCONSIN
DEPARTMENT OF STATE
FILED

JUL 25 1977

DOUGLAS LAFOLLETTE
SECRETARY OF STATE

certify:

(Use correct and complete corporate name)

1. The foregoing restatement of the articles of incorporation of said corporation was adopted by the members on the 4th day of June, 19 77, by the following vote:

Number of Members having voting rights	Number present in person or by proxy	Number voting For	Number voting Against
9	7	7	0

2. (See instructions 2 and 3)

Executed in duplicate and seal (if any) affixed this 5th day of July, 19 77

(Affix seal or state that there is none)

Robert S. Holton
President

Thomas Jaburek
Secretary

This document was drafted by

John D. Leekley, Jr.

(Name)
Please print or type

INSTRUCTIONS

1. RESTATEMENT AT MEETING OF MEMBERS. A restatement of articles can be adopted at a meeting of the members having voting rights. The vote necessary is two-thirds of those present. Item 1 is for showing such vote.

2. RESTATEMENT BY WRITTEN CONSENT. A restatement can be adopted without a meeting. This is done by ALL members having voting rights signing a written consent to the proposed restatement. When this method is used, strike out item 1 and insert in item 2 a statement that "The foregoing restatement was adopted by written consent signed by all of the members having voting rights."

3. RESTATEMENT BY DIRECTORS. Directors can adopt a restatement of articles if the corporation is one whose articles of incorporation provide that the corporation shall have no members or is one which has no members having voting rights. The vote necessary is a majority of the directors in office. When this method of restatement is used, strike out item 1 of this form and insert in item 2 a statement that the corporation has no members or is one having no members with voting rights (whichever the case may be) and that the restatement was adopted by vote of a majority of the directors in office, showing also the date of the directors' meeting.

4. Execute and submit in duplicate original. Furnish Secretary of State with two identical copies of the document. One copy will be retained (filed) by Secretary of State and the other copy returned as you indicate in the space below. The copy that is returned must be recorded with the Register of Deeds of the county in which the principal office of the corporation is located.

5. Affix corporate seal. Make sure that each of the copies of the document has an impression of the corporate seal. If the corporation does not have a seal, write or type "NO SEAL" on each of the copies.

6. Have the President and Secretary of the corporation sign. A Vice-President may sign in lieu of the President, and an Assistant Secretary may sign in lieu of the Secretary. One person may not sign as both officers. Make sure that each of the copies has original signatures–carbon copy, xerox, or rubber stamp signatures are not acceptable.

7. Send the filing fee of $10 with the document. Make check or money order payable to SECRETARY OF STATE. Your cancelled check is your receipt.

Mail Returned Copy to:
(FILL IN THE NAME AND ADDRESS HERE)

John D. Leekley, Jr.
Leekley and Williams
757 North Broadway
Milwaukee, WI 53202

STATE OF WISCONSIN
DEPARTMENT OF STATE
FILED

JUL 25 1977

DOUGLAS LAFOLLETTE
SECRETARY OF STATE

RESTATED ARTICLES OF INCORPORATION

Internal Revenue Service
District Director

Department of the Treasury

Date: April 4, 1980

Employer Identification Number:
[redacted]
Accounting Period Ending:
December 31

Form 990 Required: ☒ Yes ☐ No

Person to Contact:
S. Kelley

Contact Telephone Number:
414-725-5411

FFN 410011123 EIN 41-700382
CASE NO 41003826EO
AMATEUR RADIO EMERGENCY CORPS INC
6052 WEST DARNELL AVENUE
BROWN DEER, WI 53223

IRS

StP:EO:80-235

Dear Applicant:

Based on information supplied, and assuming your operations will be as stated in your application for recognition of exemption, we have determined you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code.

We have further determined that you are not a private foundation within the meaning of section 509(a) of the Code. because you are an organization described in section 509(a)(2).

If your sources of support, or your purposes, character, or method of operation change, please let us know so we can consider the effect of the change on your exempt status and foundation status. Also, you should inform us of all changes in your name or address.

Generally, you are not liable for social security (FICA) taxes unless you file a waiver of exemption certificate as provided in the Federal Insurance Contributions Act. If you have paid FICA taxes without filing the waiver, you should contact us. You are not liable for the tax imposed under the Federal Unemployment Tax Act (FUTA).

Since you are not a private foundation, you are not subject to the excise taxes under Chapter 42 of the Code. However, you are not automatically exempt from other Federal excise taxes. If you have any questions about excise, employment, or other Federal taxes, please let us know.

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

The box checked in the heading of this letter shows whether you must file Form 990, Return of Organization Exempt from Income tax. If Yes is checked, you are required to file Form 990 only if your gross receipts each year are normally more than $10,000. If a return is required, it must be filed by the 15th day of of the fifth month after the end of your annual accounting period. The law imposes a penalty of $10 a day, up to a maximum of $5,000, when a return is filed late, unless there is reasonable cause for the delay.

You are not required to file Federal income tax returns unless you are subject to the tax on unrelated business income under section 511 of the Code. If you are subject to this tax, you must file an income tax return on Form 990-T. In this ~tter, we are not determining whether any of your present or proposed activities e unrelated trade or business as defined in section 513 of the Code.

You need an employer identification number even if you have no employees.

If an employer identification number was not entered on your application, a number will be assigned to you and you will be advised of it. Please use that number on all returns you file and in all correspondence with the Internal Revenue Service.

Because this letter could help resolve any questions about your exempt status and foundation status, you should keep it in your permanent records.

If you have any questions, please contact the person whose name and telephone number are shown in the heading of this letter.

Sincerely yours,

C D Shultzer

District Director

Letter 947(DO) (5-77)

AMATEUR RADIO EMERGENCY CORPS, INC.
(AREC, Inc.)

By-Laws

ARTICLE I. Offices

The principal office of the corporation shall be in the State of Wisconsin and shall be at the address of the Secretary of the Corporation.

The address of the principal office may be changed from time to time by resolution of the Board of Directors.

ARTICLE II. Membership

A. Eligibility

The Board of Directors of the corporation shall constitute the membership of the corporation.

B. Meetings

The annual meeting of the membership of the corporation shall be held on the first Tuesday of February at 7:30 p.m. at the Red Cross Building at 26th Street and Wisconsin Avenue in Milwaukee or at such other time and place as the President may determine.

A quorum shall consist of five members of the corporation. Subject to law, the Articles, these by-laws, Roberts' Rules of Order, shall guide the resolution of questions of parliamentary procedure.

ARTICLE III. Board of Directors.

A. Eligibility

The Board of Directors shall consist of nine persons:

One director shall be that person who holds the position of Emergency Coordinator for Milwaukee County. Appointment to the position of Emergency Coordinator for the Wisconsin Section Communications Manager of the American Radio Relay League (ARRL), shall constitute automatic appointment to the position of director of the corporation for the duration of his appointment as Emergency Coordinator.

The remaining eight directors shall be elected by the membership of the corporation at the annual meeting from a slate of candidates recommended by vote of the Milwaukee County Amateur Radio Emergency Service (ARRL/ARES) under such procedures as may be established by the Milwaukee County ARRL/ARES; provided, however, that those six persons currently holding the position of director at the time of the adoption of these by-laws shall continue as permanent directors until they individually die, resign or are removed for cause. A majority of the total membership of the corporation shall be required to elect a person to the Board of Directors.

The term of office for an elected director shall be three years or until a successor is elected. The Board of directors may, however, by resolution adopted prior to the election, provide for a shorter term in order to stagger terms or for any other purpose. In no case shall a term be less than one year. The term of office of a director shall begin at twelve o'clock noon on the day after his successor is elected.

Vacancies during the term because of death, resignation, removal or otherwise shall be filled by vote of the majority of the remaining directors within ninety days of the occurrence of the vacancy. Such appointment shall be for the unexpired portion of the term, or, in the case of a position most recently held by a permanent director, until the next annual corporate membership meeting.

No person shall be qualified to hold a position on the Board of Directors who is not, (1) a current member of the Amateur Radio Emergency SErvice of the American Radio Relay League, as evidenced by a valid membership card issued by the Emergency Coordinator for Milwaukee County, (2) a holder of a valid amateur radio operator or station license issued by the Federal Communications Commission, (3) a resident of the State of Wisconsin, and, (4) an active participant in ARRL/ARES activities. Disqualification under one or more of the above is sufficient cause for removal by vote of a majority of the Board of Directors.

B. Meetings

A regular meeting of the Board of Directors shall be held without notice other than this by-law on the first Tuesday of each month at the same time and place as the monthly ARRL/ARES meeting. Special meetings may be called by or at the request of the Emergency Coordinator, the President, or any two directors. The call shall fix the time and place of the special meeting, and if no place or time is fixed, the place of meeting shall be the principal office of the corporation.

There shall be no need for the President to actually convene a regular monthly Board of Directors meeting unless a director indicates that there is business to be taken up by the Board. In such a case, the Secretary's minutes shall indicate that there was no business to be taken up.

C. Notice; Waiver

Notice of each meeting of the Board of Directors (other than a regular meeting held pursuant to Section B of this Article) shall be given by written notice delivered personally or mailed to each director at his home address or such other address as such director shall have designated in writing filed with the Secretary, in each case not less than forty-eight hours prior thereto. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail so addressed, with postage thereon prepaid. Whenever any notice whatever is required to be

given to any director of the corporation under the articles of incorporation or by-laws or any provision of law, a waiver thereof in writing, signed at any time, whether before or after the time of meeting, by the director entitled to such notice, shall be deemed equivalent to the giving of such notice. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting and objects thereat to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

D. Quorum

Except as otherwise provided by law or by the articles of incorporation or these by-laws, a majority of the directors currently holding office shall constitute a quorum for the transaction of business at any meeting of the Board of Directors, but a majority of the directors present (though less than such quorum) may adjourn the meeting from time to time without further notice.

E. Manner of Acting

The act of the majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the act of a greater number is required by law or by the articles of incorporation or these by-laws.

F. Conduct of Meeting

The President, and in his absence, the Vice-President, and in their absence, any director chosen by the directors present, shall call meetings of the Board of Director to order and shall act as chairman of the meeting. The Secretary of the corporation shall act as Secretary of all meetings of the Board of Directors, but in the absence of the Secretary, the presiding office may appoint any director or other person present to act as SEcretary of the meeting.

G. Presumption of Assent

A director of the corporation who is present at a meeting of the Board of Directors or a committee thereof of which he is a member at which action on any corporate matter is taken shall be presumed to have assented to the action taken unless his dissent shall be entered in the minutes of the meeting or unless he shall file his written dissent to such action with the person acting as the secretary of the meeting before the adjournment thereof or shall forward such dissent by registered mail to the Secretary of the Corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to a director who voted in favor of such action.

H. Unanimous Consent Without Meeting

Any action required or permitted by the articles of incorporation or by-laws or any provision of law to be taken by the Board of Directors at a meeting or by resolution may be taken without a meeting if a consent in writing, setting forth the action so taken, shall be signed by all of the directors then in office.

ARTICLE IV. Officers

A. Number

The principal officers of the corporation shall be a President, a Vice President - Operations, a Vice President - Technical, a Secretary, and a Treasurer, each of whom shall be elected by the Board of Directors from those persons then currently serving as Director. Such other officers and assistant officers as may be deemed necessary may be elected or appointed as the Board of Directors may by resolution determine. Any two or more offices may be held by the same person, except the offices of President and Secretary and the offices of President, Vice President - Operations, and Vice President - Technical.

B. Election and Term of Office

The officers of the corporation shall be elected annually at the first meeting of the Board of Directors following the annual membership meeting, or as soon thereafter as such election conveniently may be held. Each officer shall hold office for one year or until his successor has been duly elected or until his prior death, resignation, or removal.

C. Removal

Any officer may be removed by the Board of Directors whenever in its judgment the best interests of the corporation will be served thereby.

D. Vacancies

A vacancy in any principal office because of death, resignation, removal, disqualification, or otherwise shall be filled by the Board of Directors for the unexpired portion of the term.

E. President

The President shall be the principal executive officer of the corporation and, subject to the control of the Board of Directors, shall in general supervise and control all of the business and affairs of the corporation. He shall, when present, preside at all meetings of the members of the corporation and of the Board of Directors. He shall have authority, subject to such rules as may be prescribed by the Board of Directors, to

appoint such agents and employees of the corporation as he shall deem necessary, to prescribe their powers, duties, and compensation, and to delegate authority to them. Such agents and employees shall hold office at the discretion of the President. He shall have authority to sign, execute, and acknowledge, on behalf of the corporation, all deeds, mortgages, bonds, contracts, leases, reports, and all other documents or instruments necessary or proper to be executed in the course of the corporation's regular business, or which shall be authorized by resolution of the Board of Directors. He may authorize a Vice President or other officer or agent of the corporation to sign, execute, and acknowledge such documents or instruments in his place and stead. In general he shall perform all duties incident to the office of President and such other duties as may be prescribed by the Board of Directors from time to time.

F. Vice President - Operations

The office of Vice President - Operations shall be held by the Deputy Emergency Coordinator for the Milwaukee County ARES. In the absence of the President or in the event of his death, inability or refusal to act, or in the event for any reason it shall be impracticable for the President to act personally, the Vice President - Operations shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. The execution of any instrument of the corporation by the Vice President - Operations shall be conclusive evidence, as to third parties, of his authority to act in the stead of the President.

G. Vice President - Technical

The Vice President - Technical shall be the custodian of all radios and electronic equipment belonging to the corporation and shall oversee its safe storage and ready availability for use. He shall prepare and keep up to date an inventory of all radios and electronic equipment owned by the corporation and shall periodically report and account for the same to the Board of Directors. He shall plan and supervise all maintenance programs and shall be responsible for keeping the equipment in the highest state of readiness consistent with practical and budgetary constraints. With regard to radios and related electronic equipment, he shall be the primary procurement officer of the corporation and shall have the power to appoint others to act on his behalf. In the absence of the President and the Vice President - Operations, he shall assume the duties and responsibilities of the Vice President - Operations set forth above.

H. The Secretary

The Secretary shall: (a) keep the minutes of the meetings of the members of the corporation and of the Board of Directors in one or more books provided for that purpose; (b) see that all notices are duly given in accordance with the provisions of these by-laws or as required by law; (c)

be custodian of the corporate records and of the seal of the corporation and see that the seal of the corporation is affixed to all documents the execution of which on behalf of the corporation under its seal is duly authorized; (d) keep or arrange for keeping of a register of the post office address of each member which shall be furnished to the Secretary by such member; and (e) in general perform all duties incident to the office of Secretary and have such other duties and exercise such authority as from time to time may be delegated or assigned to him by the President or by the Board of Directors.

I. The Treasurer

The Treasurer shall: (a) have charge and custody of and be responsible for all funds of the corporation; (b) receive and give receipts for moneys due and payable to the corporation from any source whatsoever, and deposit all such moneys in the name of the corporation in such banks, trusts companies, or other depositories as shall be selected in accordance with the provisions of these by-laws; and (c) in general perform all of the duties incident to the office of Treasurer and have such other authority as from time to time may be delegated or assigned to him by the President or by the Board of Directors. The Treasurer shall give a bond for the faithful discharge of his duties in such sum and with surety or sureties as the Board of Directors shall determine, the premium there for to be paid by the corporation.

ARTICLE V. Contracts, Loans, Checks and Deposits, Special Corporate Acts

A. Contracts

The Board of Directors may authorize any officer or officers, agent or agents, to enter into any contract or execute or deliver any instrument in the name of and on behalf of the corporation, and such authorization may be general of confined to specific instances. In the absence of other designation, all deeds, mortgages and instruments of assignments or pledge made by the corporation shall be executed in the name of the corporation by the President or the Vice President and by the Secretary, an Assistant Secretary, the Treasurer or an Assistant Treasurer, the Secretary or an Assistant Secretary, when necessary or required shall affix the corporate seal thereto, and when so executed no other party to such instrument or any third party shall be required to make any inquiry into the authority of the signing officer or officers.

B. Loans

No indebtedness for borrowed money shall be contracted on behalf of the corporation and no evidences of such indebtedness shall be issued in its name unless authorized by or under the authority of a resolution of the Board of Directors. Such authorization may be general or confined to specific instances.

C. Checks, Drafts, Etc.

All checks, drafts or other order for payment of money, notes or other evidences of indebtedness issued in the name of the corporation, shall be signed by such officer or officers, agent or agents, of the corporation and in such manner as shall from time to time be determined by or under the authority of a resolution of the Board of Directors.

D. Deposits

All funds of the corporation or otherwise employed shall be deposited from time to time to the credit of the corporation in such banks, trust companies or other depositories as may be selected by or under the authority of a resolution of the Board of Directors.

ARTICLE VI. Seal

The Board of Directors shall provide a corporate seal which shall be circular in form and shall have inscribed thereon the name of the corporation and the words, "Corporate Seal".

ARTICLE VII. Amendments

A. By Directors

These by-laws may be altered, amended or repealed and new by-laws may be adopted by the Board of Directors by affirmative vote of five directors.

B. Implied Amendments

Any action taken or authorized by the Board of Directors, which would be consistent with the by-laws then in effect but is taken or authorized by affirmative vote of not less than the number of Directors required to amend the by-laws so that the by-laws would be consistent with such action, shall be given the same effect as though the by-laws had been temporarily amended or suspended so far, but only so far, as is necessary to permit the specific action to be taken or authorized.

ARTICLE VIII. Operations

AREC, Inc. may acquire or sell property for the purposes outlined in the Articles of Incorporation and the By-Laws subject to the following restrictions. Any purchase or sales of corporate property for over $1,000.00 must have the approval of the Board of Directors. The operating fund shall be established at the March regular meeting of the Board of Directors each year aNd may be modified from time to time by a majority vote at any regular or special Directors' meeting. In the event that emergency repairs are required and there are insufficient funds in the operating fund, additional funds may be appropriated to the operating fund by a majority vote of the Directors of the corporation.

ARTICLE IX.

The President may appoint such standing or special committees as may be necessary or desirable to further the objectives, programs and purposes of the corporation.

9. ARES REPEATER

9.1 Owned and operated by Amateur Radio Emergency Corps, Inc. for the benefit of the Milwaukee/Waukesha County ARES.

9.2 Transmitter and control equipment located at the top (600 feet above ground level) of the First Wisconsin Center, 777 East Wisconsin Avenue, Milwaukee, Wisconsin.

9.3 The primary receiver is located at Milwaukee Public Schools' Administration Office, 5225 West Vliet Street. Antenna is omnidirectional with slight lobe to the northwest. The secondary receiver is in the Wisconsin Tower Building, 6th & Wisconsin Avenue with a beam antenna aimed south and PL activation (3A-123.7Hz). All sites have emergency power.

9.4 The repeater is equipped with a NOAA weather receiver tuned to the Weather Service continuous broadcast station on 162.4 MHZ. When the Weather Service transmits a tone to alert listeners to an important weather announcement, a 1395 HZ tone is transmitted by the repeater and the following 60 seconds of NOAA transmissions is retransmitted on 146.67 MHZ. The receiver is activated during the severe weather season.

9.5 The repeater is equipped with a manually activated 1395 HZ tone alert.

9.6 The ARES Repeater is the primary emergency channel for the Milwaukee area. All amateurs are encouraged to equip their equipment with 146.07/.67 MHZ. There are no dues to use the repeater. All local amateurs are encouraged to use the ARES repeater as a calling frequency and short QSO's. A long pause (at least two seconds) is required between transmissions. <u>All</u> breakers <u>must</u> be acknowledged <u>immediately</u>.

10. SHERIFF'S EMERGENCY PHONE PATCH

10.1 The Milwaukee County Amateur Radio Emergency Service Repeater (07/67) features a unique system to enhance the public service capabilities of Amateur Radio Operators in the Milwaukee metropolitan area.

10.2 A direct telephone line has been installed between the repeater, located atop the First Wisconsin Center, and the Milwaukee County Sheriff's switchboard. Any amateur using the ARES Repeater can have direct access to the Sheriff's Operator by dialing a three digit code using a Touch-Tone dial attached to a 2 Meter radio. The Sheriff's Operator can also send a signal to an ARES operator by using the system in reverse.

10.3 This Emergency Patch System will be used ONLY to report incidents which pose a threat to life or personal safety such as, accidents, disabled vehicles in traffic, injured persons, criminal activities, fires, etc.

10.4 OPERATION OF THE EMERGENCY PATCH SYSTEM

A. Give your call and say "Emergency Patch".
B. Drop your carrier momentarily (this step is mandatory).
C. Dial access code 612.
D. Wait for Sheriff's Operator to answer
E. Give your CALL LETTERS and your TRAFFIC. Example: "This is WA9XYZ, reporting a 2 car accident, property damage only, in lane number 2, northbound, I-43 at Silver Spring.)
F. After Sheriff's Operator acknowledges, dump the patch by dialing the dump code: 0.
G. Give your call and say "Patch Clear".
H. Stay on frequency for at least 3 minutes after completing your call in the event that the Sheriff's Operator needs more information. If you hear a series of beeps for several seconds, this is a signal that the last station to use the Patch System should access the System again, in the same way as above.

10.5 NOTE: The Emergency Patch System can be accessed only during the first 3 seconds of a transmission. There is a 3 minute timer on the Patch System but the System may be dumped at any time. The System may be turned off by a Control Operator, in which case you may hear a beeping tone after you dial the access code. The system may be accessed even if the repeater is off the air, at the discretion of the Control Operator. The Control Operator may also intercept a call if necessary. If you mis-dial, or for some other reason fail to access the patch, wait at least 10 seconds before trying again.

10.6 REPORTS CONCERNING PUBLIC SAFETY FROM ARES OPERATORS - from Milwaukee County Sheriff:

We ask that you report only incidents which pose a threat to life or personal safety. (Accidents, Vehicles Disabled in Traffic, Injured Persons, Criminal Activities, Fires, etc.)

We will accept report of such incidents anywhere in the County and adjacent areas of Racine, Waukesha, Washington, or Ozaukee Counties and will relay them to the proper agency.

We need the following:

1. Highway number (I-43, I-94, US-45, etc.).
2. Direction of travel (North, South, East, West).
3. If on city streets, address or intersection.
4. Is traffic obstructed or is it out of traffic?
5. Are there any apparent injuries? (DO NOT guess. If you don't know, SAY SO. Many accidents look worse than they really are. DON'T cause an ambulance to be sent needlessly. By doing so, you cause risk to the ambulance personnel and could divert their unit away from a bona fide injury accident occurring at the same time elsewhere. Squads are generally only minutes away in an urban area.)
6. If vehicles are on fire, smoking or there is a fuel spill, advise of this and fire equipment will be sent.

REMAIN CALM. Get as much of above information as you can. Use PLAIN ENGLISH and say EXACTLY what you mean. Be brief and to the point.

We recommend that you do not stop on Milwaukee County Freeways to render assistance at an accident scene unless you fit one of the following categories:

1. You were involved.
2. You were a witness.
3. You have medical training of a caliber to allow you to alleviate life threatening injuries and stabilize the injured until help arrives.

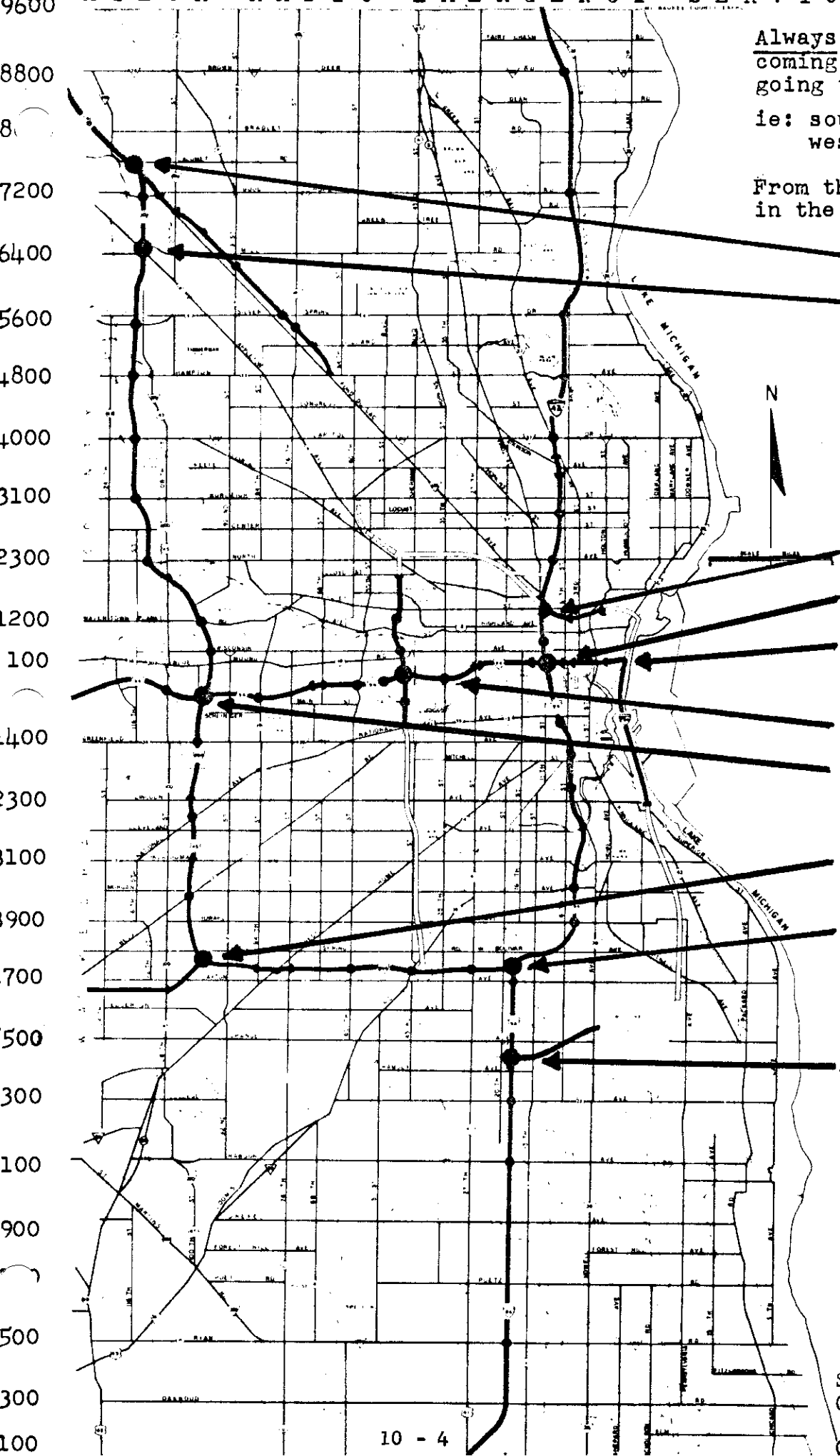
Even in the above cases, exercise EXTREME CAUTION to protect yourself.

You will be adding to the traffic problem and will be running the high risk of being injured or killed by subsequent accidents which often occur.

Freeways are NOT like city streets. They are extremely dangerous because of the heavy flow of high speed traffic. Even under ideal conditions, driver fatigue or inattentiveness, high speeds and short distances between vehicles often make it impossible to stop a vehicle from striking stationary objects in the traffic lanes.

Use caution in the area of criminal activities. Remember, uniformed personnel arriving on the scene do not know who you are. Be an OBSERVER - let the uniformed officers act.

AMATEUR RADIO EMERGENCY SERVICE



INTERCHANGES

Always indicate direction coming from -to- direction going to.

ie: southbound I-43 -to- westbound I-94 would be:

From the NORTH to the WEST in the Marquette Interchange

North Granville Int.

South Granville Int.

Hillside Interchange

Marquette Interchange

Lake Interchange

Stadium Interchange

Zoo Interchange

Hale Interchange

Mitchell Interchange

Airport "Spur"

Sheriff Milwaukee Co.
Communications Bureau

06/20/80 RLG

11. EQUIPMENT

11.1 All ARES members are expected to keep their radios and associated equipment in good operating condition. In addition they are encouraged to prepare an emergency kit of essential items. The following checklist will be useful.

Station Log
Message blanks
Carbon paper
Scratch pads
Pens, pencils, eraser
Electric lantern
Headphones, junction box
Water purifier kit
Toilet articles
Towels, wash cloths
Wash basin
Mirror & shaving gear
Soap, hand & laundry
Syphon
Generator
Candles
Matches in waterproof container
Maps (especially local)
Battery b.c. radio
Extra batteries
Test equipment
Can & bottle openers
Toilet paper
Medicines as needed
Alarm clock
Extra gas & oil
Tow cable
Portable antenna
Identification
Tools! (all kinds)
12 v. & 120 v.soldering irons
Spare tubes
Spare fuses
Food (for 3 days max.)
Water
Eating utensils
Jumper cables
Shovel & pick
Hatchet, ax, saw
First aid kit
Flashlights
Sleeping bag/blankets
Foul weather gear
Emergency operations manual

Public Service

Conducted By Robert J. Halprin,* K1XA

An Emergency Communicator's Checklist

Having participated as a radio operator during recent flood disasters, I learned the value of having a checklist prepared ahead of time. During the local emergency, one has too much "on the brain" to arrive at the disaster site *totally* prepared. But one can try.

Since one can often be harried at these moments, the list does, and will, supply a double check for "essentials," as well as other desirable equipment that has been found to be valuable in actual experience. Of course, this list is personalized for my individual situation, but I'm sharing it with others in the hope that its broadness will cover other situations as well.

The list consists of three sections. List A is radio equipment gear, and is self-explanatory. Your own specific equipment should be listed according to frequencies and capabilities, and scope of operation. A vhf scanner that can run off of a 12-V gel cell can be very valuable if your repeater goes down and an evacuation is underway without your knowledge (in addition to letting you know about police, fire, weather, highway department and other emergency conditions). In this regard, a battery-operated broadcast band radio or TV (ac/dc) can also be of great help if you are stationed in a remote outpost or evacuation center. Likewise, a microphone/earphone combination headset can eliminate local noise problems, privatize communications and free your hands for writing or holding, as the case may be, and is highly recommended. Hand-held gear should

*Deputy Communications Manager, ARRL

List A

Communicator's Checklist
Radio Equipment

- ☐ 2-meter hand-helds with batteries/ac adapters/chargers/mike
- ☐ 2-meter mobile and portable equipment/ batteries/adapters/chargers
- ☐ 2-meter amplifier
- ☐ 2-meter preamplifier
- ☐ antennas (see List B)
- ☐ 6-meter gear
- ☐ hf mobile rig
- ☐ hf portable rig with ac power supply and 12-volt HD battery
- ☐ hf mobile and portable antennas (see list of antennas)
- ☐ 220-MHz rig
- ☐ power amplifiers, microphones
- ☐ earphones
- ☐ hand-key and battery-operated keyer with spare batteries
- ☐ antenna switch, tuner, bridges
- ☐ for mobile van: RTTY gear, ASCII gear, typewriters
- ☐ vhf/uhf scanner with emergency power supply
- ☐ general-coverage and MARS frequency receiver
- ☐ marine radio communications gear
- ☐ microphone/earphone headset combination
- ☐ all adaptors for mini plugs, RCA plugs, 1/4 in. phone-jack combinations, etc.
- ☐ ground bus
- ☐ braid
- ☐ wattmeter
- ☐ noise bridge/grid dip meter
- ☐ extension cords
- ☐ 3-to-1 power plugs
- ☐ wire nuts
- ☐ new equipment: _____

List B

Communicator's Checklist
Operating Equipment

Antennas:

- ☐ mobile antennas: 2-meter mag mount, vhf 1/4-λ antennas.
- ☐ 5/8-wave portable with radials
- ☐ two 50-ft sections of coax with PL-259s
- ☐ coax patch plugs for amplifiers, tuners, preamps, etc. (5)
- ☐ BNC to PL-259 adapters (4)
- ☐ PL-259 to BNC adapters (4)
- ☐ portable hf antenna (vertical)
- ☐ portable hf longwire/dipoles
- ☐ hf antenna tuner and swr bridge
- ☐ hf mobile mount and antennas
- ☐ rubber duck antenna (vhf, uhf)
- ☐ 5/8-wave, telescopic hand-held antenna
- ☐ collapsible vhf quad with mast
- ☐ spare PL-259 connects and double SO-239 barrel connects
- ☐ male-to-female coax adapter
- ☐ masts
- ☐ radials
- ☐ other antennas
- ☐ insulators, guy wire, nylon cord, fishline and weight, stakes, ground clamps/rods, counterpoises, bumper-mount clamp, resonators, mast, gutter clips, braid, ground wire

Power

- ☐ ac generator and fuel
- ☐ extension cords
- ☐ 2-prong plug adapters to 3-prong (ac receptacle)
- ☐ 1-to-3 plug adapters (ac receptacle)
- ☐ solar-powered battery charger
- ☐ hand-held battery charger (mobile)
- ☐ hand-held battery charger from ac
- ☐ battery charger charging devices
- ☐ 12-V power supply for hf rig
- ☐ 12-V power supply for vhf rigs
- ☐ battery packs (extra)
- ☐ extra battery for car
- ☐ gel cell
- ☐ NiCads
- ☐ cigarette lighter adapter
- ☐ spare fuses for rig, ac lines and car
- ☐ mobile power cords/adapters/wire nuts, tape
- ☐ variable voltage ac-to-dc power supplies and plugs

Tools

- ☐ VOM (for batteries, etc.)
- ☐ soldering iron and solder, slotted screw driver, pliers, hammer, wire cutters, knife/ stripper, Phillips screw driver, hookup wire, long nose pliers, wire nuts, tape, connectors
- ☐ splice kits, 1/4-in. phone jack plugs, mini plugs, RCA plugs and adapters
- ☐ alligator clips

List C

Communicator's Checklist
Personal Gear

- ☐ *Net Directory*
- ☐ *ARRL Operating Manual, Public Service Communications Manual, Operating An Amateur Radio Station*
- ☐ ARES i-d, RACES i-d, Red Cross i-d
- ☐ driver's and Amateur Radio licenses
- ☐ money, checkbook, keys
- ☐ maps
- ☐ logbook, notebook, paper, pens, pencils
- ☐ thumb tacks, tape
- ☐ Q-signal list, numbered radiogram list, other operating aids
- ☐ phonetic alphabet
- ☐ radiogram pads
- ☐ cardboard signs, felt-tipped pens
- ☐ card table, folding chairs
- ☐ watch, clock (battery-operated)
- ☐ battery-operated broadcast receiver
- ☐ battery-operated ac/dc television
- ☐ flashlights, knife, portable area light (dc/battery-powered/ac)
- ☐ jumper cables, spare auto fuses
- ☐ chains for tires, antifreeze, check spare tires, gas, oil, radiator
- ☐ cones, orange or red jacket
- ☐ flares, hard hat
- ☐ spare batteries for flashlight/radio
- ☐ notepad, clipboard
- ☐ jug of drinking water (minimum 1 gallon)
- ☐ empty gas can, siphon, jack
- ☐ thermos, cup, bowl, utensils, toothpaste, deodorant, soap
- ☐ razor, toothbrush, floss, towel
- ☐ sleeping bag and pad or blanket
- ☐ tent, backpack, hatchet, ax
- ☐ warm clothing (extra socks), sweaters, boots, gloves, hat, or cool clothing (shorts, sunglasses
- ☐ first-aid kit, insect repellent
- ☐ food, tea, etc.
- ☐ toilet paper, small shovel
- ☐ good raingear with hood and boots
- ☐ club roster, *Callbook*
- ☐ *Repeater Directory*
- ☐ emergency-frequency list
- ☐ phone numbers of ECs, DECs, SEC, SCM
- ☐ phone numbers of key personnel or agencies
- ☐ tow-chain winch
- ☐ can/bottle opener
- ☐ binoculars
- ☐ candles, matches, stove
- ☐ compass
- ☐ personal comfort items
- ☐ battery-operated tape recorder with jacks to plug into your receiver
- ☐ gas mask or respirator, rubber gloves, rubber boots (for chemical spills)
- ☐ tools
- ☐ Hibachi stove and coal
- ☐ pocket full of dimes for pay-phone access

[Editor's Note: NI6A is an assistant emergency coordinator for West Contra Costa County and has been active in RACES, ARES and NTS since 1959. He is currently a participant in the Sixth Region Net, the Northern California Net, the West Contra Costa County ARES and RACES, and is actively engaged in setting up specific arrangements for facilitating the collection and relaying of Welfare traffic in and out of northern California.]

12. PERSONNEL

12.1 Membership policy

A) Because of the unique and vital services it is required to perform for the public good, the ARES does not function as a social group. It is NOT a club! It is a recognized organization of trained radio operators WHO CAN BE RELIED UPON to respond properly and quickly in times of emergency.

B) It is the recognized entity with which civil emergency agencies have established liaison and can be relied upon to implement established emergency plans and procedures.

12.2 Deputy Emergency Coordinator. The Deputy Emergency Coordinator is appointed by the Emergency Coordinator. His duties are in general to understudy the EC with the view towards being eventually appointed EC. He acts as EC when the EC is unavailable or out of town. He performs various tasks as assigned by the EC. The Deputy EC serves at the pleasure of the EC.

12.3 Assistant Emergency Coordinators. The assistant Emergency Coordinators are appointed by the EC. The EC may appoint as many as necessary. He may remove any Assistant EC for any reason, and will assign such tasks to individual Assistance ECs or to the group generally as he deems advisable or necessary.

12.31 The following is a list of the Assistant EC positions in the Milwaukee/Waukesha Metropolitan ARES and their duties and responsibilities:

a. Milwaukee County Liaison: Acts as a communication conduit between the ARES and Milwaukee County Emergency government and Sheriff.

b. Milwaukee County Emergency Government: Responsible for recruitment, training and assignment of ECO's to Milwaukee EG duty. Monitor equipment at EOC and report breakdowns or new equipment needs.

c. Milwaukee Red Cross: Responsible for recruitment, training and assignment of ECO's to the Milwaukee Red Cross chapter radio room. Also responsible for setup and maintenance of the radio room facilities and antennas.

d. Trailer: Responsible for recruitment, training and assignment of ECO's to the ARES' communications trailer. Responsible for maintenance and upkeep of trailer. Majority of AEC and ECO's must have capability and experience in towing small trailers.

e. Waukesha County Emergency Government: Responsible for recruitment and training of ECO's for duty oat the ECO.

Monitor status of equipment at EOC and arrange for repairs or replacement as needed.

f. Waukesha County Red Cross.

g. Waukesha City Emergency Government: (Combined with Waukesha County until further notice.)

h. State Patrol HQ Waukesha (SE Area, Goerke's Corners):

i. Records and Weekly Net Control: Keeps current roster of ARES members; collects and records net check ins; assigns net control for weekly nets.

j. Equipment: Maintains ARES repeater and kit of emergency equipment.

k. Historian/Publicist: Keeps records of ARES activities including pictures and news stories; writes stories about ARES activities for local newspapers and QST.

l. Packet: Responsible for keeping current with all phases of packet radio; develop a coherent, workable plan for utilization of packet radio in an emergency; recruit ECO's who have packet equipment and experience and develop a plan for deployment and use of packet in emergency situations; encourage development of portable packet capability.

m. Club Liaison: Responsible for relaying information about ARES to the club (including new policies and procedures, coming events, personnel needs, etc.) and information, concerns, and questions from the club to the EC. Solicits new ARES members and forwards sign-up sheets to the EC. To be appointed by the club -- will be automatically be assigned an Asst. EC title.

n. Training Officer: Responsible for developing training programs to be given at regular meeting time and other times as appropriate. Assists EC in coordinating civic events.

o. Net Control Stations: Operators with extensive experience and ability as net control stations, and who are available and qualified to handle emergency and weather nets will be accorded Asst. EC status.

12.4 Emergency Communications Operators. The ECO appointment is given to ARES members who have volunteered to undertake a specific communications role such as assignment to the Sheriff's Department or the Red Cross. The purpose is to develop a pool of competent, trained operators who will be available for duty as required.

12.5 Acting Emergency Coordinator. In the absence or unavailability of the EC, the Deputy EC has the authority and performs the duties of the EC. In the event the EC and Deputy EC are unavailable or out of town, the EC or DEC will appoint an Acting EC who will have the authority and perform the duties of the EC.

12.6 Form of Application for ARES Membership, (see next page).

12.7 Current Roster (inserted after this section).

AMATEUR RADIO EMERGENCY SERVICE

MILWAUKEE COUNTY, WISCONSIN

REGISTRATION FORM

Registering in the Amateur Radio Emergency Service involves no dues or assessments of any kind, nor any obligation to join any amateur radio organization to retain membership.

Please Print or Type

NAME _____ CALL _____ DATE OF BIRTH _____

HOME ADDRESS _____ CITY & STATE _____ ZIP _____

COUNTY _____ HOME PHONE _____ SOC. SEC. NO. _____

OCCUPATION _____ BUSINESS NAME _____

BUSINESS ADDRESS _____ CITY & STATE _____ ZIP _____

COUNTY _____ BUSINESS PHONE _____ EXT. _____

DAYS OFF _____ SHIFT HOURS _____

WHAT EXPERIENCE IN HANDLING EMERGENCY TRAFFIC? _____

_____

CLASS AMATEUR LICENSE _____ EXPIRATION DATE _____

MEMBERSHIP CLASSIFICATION

Membership classification in the Milwaukee County ARES is based on ability and willingness to participate. Two classes of membership are available:

FULL MEMBERSHIP is granted to those who regularly attend meetings, check into the weekly net, volunteer for and participate in most drills and exercises, and actual emergencies (including severe weather alerts).

LIMITED MEMBERSHIP is available to those who are interested in ARES activities, but who are unable to actively participate.

Your membership classification will be determined by the Emergency Coordinator based on your commitment to participate in ARES activities. Assistant Emergency Coordinator positions are assigned to a limited number of persons who have demonstrated an extraordinarily high level of commitment, and who have assumed special responsibilities with regard to ARES activities. This application, when properly completed, may also be used to qualify you as a RACES station.

SIGNED _____ DATE _____

Please fill in information on reverse side.

Because this is an emergency service, we need your answers to the following questions:

a) Do you have low band capability (80-10M) in CW, phone? Yes __ No __
b) Do you have 2 MTR capability at home? Yes __ No __
c) Do you have 2 MTR capability mobile? Yes __ No __
d) Do you have 450 MHZ capability? Yes __ No __
e) Do you have HT capability 07/67? Yes __ No __
67/67? Yes __ No __
f) Do you have a reliable source of emergency power? Yes __ No __
g) In the event you are not on 67 and someone wants to contact you, what repeater are you most likely to be found on? _____

h) Availability (check one)
__ Available at anytime - no notice required.
__ Available anytime with advance notice.
__ Available evenings and weekend only.
__ Available weekends only.
__ Not available at all.
__ Other (explain) _____

i) Areas of Interest (mark all applicable items)
__ Emergencies only.
__ Assignment to Agency EOC (such as City, County, Red Cross).
__ Civic events.
__ Liaison Station (to other nets, repeaters, or HF frequencies).
__ Net Control Station.
__ Fund Raising.
__ Liaison to Area Clubs.
__ Technical.
__ Other (explain) _____

(Note: Do not mark "Emergencies only" unless you are available for emergencies only, and not for any other assignment. It will be assumed that you are available during emergencies if you are also available for one of the other items.)

Parade Signup

Sign me up to work on the following parades:

City of Festivals Parade _____ Circus Parade _____

Can you walk the route (3 mi.) if assigned? _____
A synthesized two meter HT is mandatory. If you don't own one, try to borrow one. Also, extra batteries are a necessity.
Do you have a 450 mHZ HT? _____
What was your parade assignment(s) last year? _____
Do you want the same assignment this year? _____
Other information: _____

_____

ROSTER

OF THE

AMATEUR RADIO EMERGENCY SERVICE

FOR

MILWAUKEE COUNTY, WISCONSIN

AS OF

NOVEMBER, 1988

13. COMMUNITY ACTIVITIES AND DRILLS

13.1 The ARES will undertake to provide communications for several non-emergency activities each year. These activities provide drill and training in good communications procedures. They provide an opportunity to test procedures and equipment and they provide a non-emergency environment and equipment and they provide a non-emergency environment in which experience can be gained in solving new problems and wherein new procedures can be tested and evaluated.

13.2 The Training Officer selects activities based on the potential benefits both to the public and to ARES members. No activity directly sponsored by a for-profit organization will be considered.

13.3 Members are expected to participate in these activities. Persistent refusal to do so will be grounds for revocation of membership.

13.4 Procedures and assignment of personnel will be governed in large measure by the type of activity. Every effort should be made to utilize procedures which are applicable to emergency situations. The procedures outlined on pages 13-2 through 13-4 are designed to be copies and distributed at the briefing prior to a drill or emergency operation.

13.5 The consent and Release on page 13-5 is designed to be copied for signature by participants in a drill or emergency field operation.

OPERATIONS PROCEDURES

ARES - Milwaukee/Waukesha

The following instructions and procedures will apply to all Milwaukee/ Waukesha County, ARES field operations and to actual emergency operations as appropriate. The purpose of these instructions and procedures is to provide rules and a framework for a professional, efficient communication system. Remember: other are listening to us and will be critical of any deviations from professional standards.

GENERAL

All communications will be at the direction of the Net Control Station. Only stations designated as "Priority" stations may by pass Net Control.

No transmissions which are unrelated to the operation are authorized.

All operators assigned to a specific location must stay at that location unless otherwise authorized by NCS.

Area, location or assignment designators (tactical call signs or post numbers) will be used for identification at all times except when NCS calls a roll call or when specifically authorized by NCS.

Keep all messages short, clear and concise. Eliminate all excess words.

Net Control Logging Operation will copy all traffic and maintain an accurate time record of all traffic, an assignment log and other necessary records.

All operators will maintain a written record of all traffic originated or received at their position.

Unless time is critical, all operators will compose a written message first, in the standard form, and then transmit the message to the proper station.

Upon completion of transmission of message traffic, NCS will give time of completion. Originating station will log time of completion of his traffic on his log.

Upon begin relieve, the operator going off duty will brief his relief operator as to all pertinent information necessary to operations at that position.

FIELD OPERATIONS

If appropriate to a field operation (this will be discussed during the briefing), operators will be asked to report any incident which may be of interest to law enforcement or event officials. If message traffic is a result a complaint lodged by a person or patron of the event, record name of person and keep him or her at your location until the proper assistance arrives.

The operator assigned to law enforcement liaison will copy and log all traffic of interest to law enforcement.

Procedure

A. Calling and answering
   1. When Calling, transmit the following:
      "Net Control this is (Your position or designator)"

   2. Net Control will respond:
      "Go Ahead"

   3. Without further identification, give your composed message clearly, slowly, distinctly, in a normal conversational voice. When finished, just stop. The words "go ahead", "over", etc., are not only unnecessary, they are redundant.

      However, if you have more than one message, conclude with:
      "More to follow".

   4. At conclusion, or when proper station acknowledges the traffic, Net Control will transmit:
      "Net Control clear, (Time)"

   5. If clarification or repeats are required, Transmit only the information requested, without adding identification or other extraneous verbiage.

Time and Status Check

A. At hourly intervals, as traffic permits, the Net Control Station will, to verify records and meet FCC requirements, call the status, as follows:

   1. "Net Control to all stations, Time and Status check. Respond with your amateur call and status only."

   2. Net Control will then call each station, using the position or assignment designator.

   3. The called station will respond with his amateur call and, if status is normal, the word "OK".

   4. At the conclusion, Net Control will give his own amateur call, and clearing time.

NOTE:

In any contingency not covered in the procedure or briefing, use common sense, be brief, keep your cool. Work it out with Net Control. Don't hesitate to ask for help. If complex, someone can go on another channel with you and sort out the problem.

If questions occur during operations but are not urgent, record them and clear them at the critique.

Operations channels will be designated during briefing, or by the Net Control Station, if a change is necessary.

If the primary channel fails, go to the alternate channel and standby.

CONSENT AND RELEASE OF LIABILITY

AMATEUR RADIO EMERGENCY SERVICE
FOR MILWAUKEE AND WAUKESHA COUNTIES
and the
AMATEUR RADIO EMERGENCY CORPS, INC.

CONSENT OF PARENT OR GUARDIAN

(If the individual volunteering is under the age of eighteen (18) years of age, his or her parent or legal guardian must complete the following:)

I, the undersigned parent/guardian (strike one) of

_____ _____
Name Date of Birth

hereby give my son/daughter/ward (strike two) permission to volunteer for and participate in an ARES/AREC activity and I am executing the following release on his/her behalf.

RELEASE OF LIABILITY

KNOW ALL MEN BY THESE PRESENTS, that I, the undersigned, in consideration of the opportunity to volunteer for and participate in a communications activity in conjunction with the ARES/AREC do hereby forever release and discharge the officers and directors of Amateur Radio Emergency Corps, Inc., the Emergency Coordinator all of the Assistant Emergency Coordinators and all members of the Amateur Radio Emergency Service from any and all claims, damages, or causes of action which may arise from my voluntary participation in such communications activity.

Dated this _____ day of _____, 19___.

_____
Name

14. DISASTER WELFARE MESSAGES

14.1 The ARRL Communications Manager and the Chief of Emergency Communication of American Red Cross have entered into an agreement concerning principles of handling disaster welfare inquiries by amateur radio and Red Cross facilities during major communications emergencies.

14.2 This agreement will ask amateurs to observe the following procedures in handling such traffic:

A) Refer all inquiries to the local Red Cross chapter, which is equipped to handle them.

B) If for any reason this cannot be done, amateurs may undertake to originate such traffic in standard ARRL message from via established routes, preferably the ARRL National Traffic System. Messages should be addressed to RED CROSS DWI at the location of the disaster. The Text should contain as much of the following information as possible: (a) Full name of person or persons being inquired about hereafter referred to as the inquiree. (b) Full street address. (c) City and State. ZIP CODE not required. (d) Home telephone number. (e) Name, address and telephone number(s) of employer(s) of inquiree(s). (f) Full name, address and telephone number of inquirer. (g) Any additional information required, other than standard welfare report.

C) Do not solicit such traffic or in any way advertise your ability to handle it.

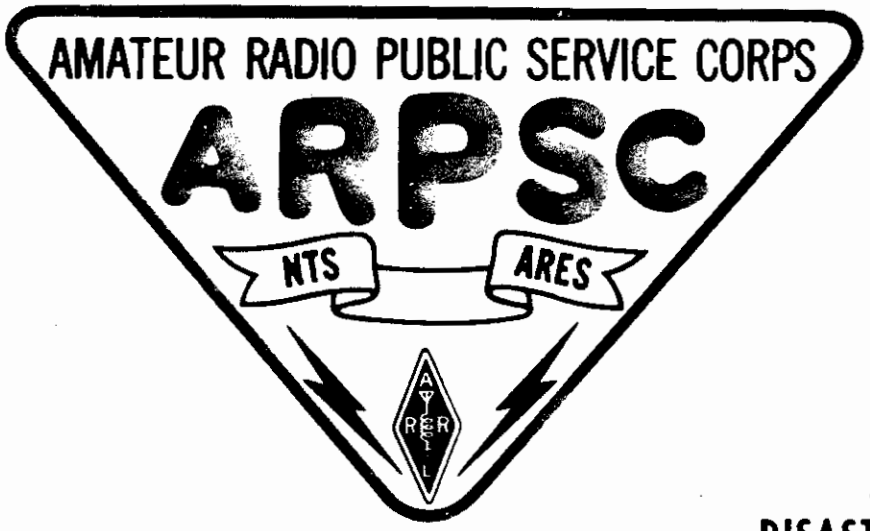
D) Disaster welfare inquiries (DWI) bear the precedence Q (inQuiry). Any welfare information coming out of the disaster area bears the precedence P (Priority).

E) DWIs can be initiated by amateurs directly to the disaster area if amateur facilities for this purpose exist. In such cases, the same information as above should be included. DWI replies can be handled either by amateur facilities or Red Cross landline teleprinter facilities.

14.3 A form of an outgoing disaster welfare message is printed on the following page.

THE AMERICAN RADIO RELAY LEAGUE, INC.

ADMINISTRATIVE HEADQUARTERS NEWINGTON, CONNECTICUT, U. S. A. 06111



AMATEUR RADIO DISASTER WELFARE MESSAGE

NR	PRECEDENCE	HX	STATION	CHECK	PLACE OF ORIGIN	TIME	DATE
	P			ARL			

TO: _____ TELEPHONE _____

_____ CITY _____ STATE _____

(PLEASE CHECK NOT MORE THAN TWO STANDARD TEXTS FROM LIST BELOW)

_____	ONE	All safe. Do not be concerned about disaster reports.
_____	TWO	Coming home as soon as possible.
_____	THREE	Am perfectly all right. Don't worry.
_____	FOUR	Everyone safe here. Only slight property damage.
_____	SIX	Everyone safe, writing soon.
_____	ELEVEN	Conditions do not permit me to come home at this time. Am perfectly all right. Will be home as soon as possible.
_____	EIGHTY SIX	Everything well here. Hope all well there. Will write later.
_____	NINETY	Arrived at _____ (place) safely. Will write as soon as possible.

DATE _____ SIGNATURE _____ TELEPHONE _____

Please Note: Priority will be given to messages having delivery telephone numbers. Delivery of messages requiring postage or telephone toll charges is optional with the delivering station.

MESSAGE ACCEPTED AT	SENT TO	TIME	DATE	OPERATOR	CALLSIGN

15. WEEKLY NETS

15.1 The Milwaukee/Waukesha County ARES net is held each Monday night at 9:00 P.M. local time on 146.07/.67 MHZ. All area amateurs are invited to check in.

15.2 Logs will be kept of all nets.

15.3 STANDARD INTRODUCTION AND SCRIPT

This is _____, net control for the Milwaukee/Waukesha Area Amateur Radio Emergency Service Net.

This net meets each Monday at 9 PM local time. It is a part of the National Traffic System and will accept formal traffic.

All communications during this net will be directed by Net Control. Your control operator tonight is _____.

We now stand by for stations with FORMAL traffic ONLY. List the precedence and destination of your traffic.....

We now stand by for stations with ANNOUNCEMENT OF GENERAL INTEREST TO THE NET. Your call letters, in phonetics, only please .....

We now stand by for stations with INFORMAL traffic for INDIVIDUALS. List your call and the call of the station you wish to contact ....

** (ALPHABETICAL CHECK-INS)

We now stand by for all other stations. Please identify with standard phonetics.

Stations in alphabetical segment .....

A Alpha and B Bravo	N November thru O Oscar
C Charlie thru E Echo	P Papa thru R Romeo
F Foxtrot thru I India	S Sierra thru U Uniform
J Juliet thru M Mike	V Victor thru Z Zulu

Any newcomers or latecomers, A Alpha thru Z Zulu

** (GEOGRAPHICAL CHECKINS) (ALTERNATE)

Stations in Milwaukee County, North of Capitol Drive .....
" " " " North of Wisconsin Avenue .....
" " " " South of Oklahoma Avenue .....
" " " " South of Wisconsin Avenue .....
Stations in Waukesha County .....
" " Ozaukee County .....
" " Racine and Kenosha Counties .....
" " Washington County .....
Any other stations .....

We now stand by for any station who will accept traffic for (designation) .....

(NOTE; ONLY PRIORITY traffic will be passed at this time. Routine traffic will be passed as the last business of the net.)

We now stand by for _____ who has an announcement .....

We now stand by for _____ to contact _____. Call your station .....

Is there any final traffic for this net? This is _____, net control, standing by .....

This concludes the Milwaukee/Waukesha Area A.R.E.S. Net. Your Net Control Operator next week will be _____. This net is now secured at (time). This is _____ Net Control, Clear.

PROPOSED

Note: This chapter has not received final approval.

CHAPTER 16

ANNEX ___

COMMUNICATIONS
APPENDIX _____

Milwaukee County Division of Emergency Government

_____. Volunteer Support Communications
Radio Amateur Civil Emergency Service (RACES)

1. Structure, Responsibility and Authority

A. The position of Radio Amateur Civil Emergency Service (RACES) Officer (hereinafter "Radio Officer") shall be held by the person who then holds the position of Emergency Coordinator of the Amateur Radio Emergency Service for Milwaukee County.

B. The Radio Officer is responsible for, and has authority over, all volunteer support and auxiliary communications in the County during any public safety or emergency situation, including officially sanctioned drills, exercises or other occasion of need.

C. The Radio Officer reports to the Director.

D. In a declared emergency and where the situation perimeter may extend beyond county lines, the Radio Officer of the county of jurisdiction will maintain control in accordance with established mutual aid procedures.

E. In accordance with Federal Communications Commission Regulations pertinent hereto, and during any situation meeting emergency situation criteria, any radio communications having a potentially adverse effect on proper control, security, or public safety, or judged to interfere with emergency operations will not be permitted.

F. Organization, control, training, discipline and security shall be in accordance with Federal and State guidelines as outlined in the State Emergency Operations Plan, and Radio Amateur Civil Emergency Service (RACES) rules (FCC) as amended.

2. Alerting/Activation

A. The Radio Officer will be alerted to, and briefed as often as necessary, during any potentially dangerous situation, or as soon after occurance as possible. The name, address and phone numbers of the Radio Officer and his alternates are on file with the Director.

B. At his option, the Radio Officer may alert key communications personnel to a potentially dangerous situation, or he may alert all concerned personnel via common radio channel, depending upon scope, severity and urgency.

C. If additional communications support becomes necessary, The Radio Officer will contact the proper adjacent County Radio Officer or other leadership, with an assessment of needed assistance. If key personnel is not available, he may call for assistance via common radio channel or any other means available.

D. When activating or requesting volunteer communications, the Radio Officer will designate one or more staging areas and staging officers. All responding volunteer communications personnel will report to, and be dispatched or assigned from a staging area, unless specifically instructed otherwise.

E. All volunteer personnel will register with the staging officer, giving name, address, call, vehicle registration if driving, and any other identification data. Each person will be assigned an identification number (with a windshield card if a mobile unit). No vehicle or personal will be permitted inside the situation perimeter without this identification.

F. A security officer will be assigned to the staging area to assist, to maintain security, to insure compliance with established procedures, to help with local direction, parking, and to deny access to area by unauthorized personnel.

G. Identification cards must be surrendered to proper authority when personnel are released, or at the conclusion of the exercise or emergency operation. The identification number cannot be used after it is returned.

3. Assignment/Deployment

A. In assignment of volunteer communications personnel, every effort is made to prevent risk or harm to any person, vehicle or equipment. Each person, when assigned or dispatched, has the option to refuse that assignment if he (or she) feels there is such risk.

B. While on assignment, those volunteers providing their own equipment will stay with and operate their own equipment whenever possible. Personnel without equipment may use other personal equipment only with owner's consent.

C. When necessary, volunteer communications personnel will be provided equipment (if available), from the Milwaukee County ARES kit.

D. Volunteer communications personnel responding and assigned to duty during an emergency must plan to be virtually self-sufficient for the time required to establish a stable rountine for relief, shelter, feeding and personal needs.

4. Operating Procedure

A. Standard FCC assigned amateur call signs shall be used at all times unless tactical call signs or identification numbers are assigned and required to be used. The decision to use tactical call signs or identification numbers shall be made by the Radio Officer.

B. Unless otherwise directed, all messages shall be plain English spoken clearly at dictation speed.

C. All radio circuits will be used to transmit and receive tactical, operational, administrative, or situationsrelated to traffic only.

D. All transmissions and/or messages must be as brief as possible.

E. In general, unless there is a specific provision contained in this Appendix, the systems and procedures developed for use by the Milwaukee County ARES shall be utilized when operating under the authority of this Appendix.

F. Volunteer communications personnel are to be advised that all messages, traffic, or other information, either written or oral, relating to the situation are privileged and cannot be divulged to the press, public, or any other unauthorized personnel unless specifically authorized by the Radio Officer, Public Information Officer, the Director or the Head of Government involved. Any attempt by unauthorized person or persons to gain such information must be reported immediately to the Radio Officer.

5. Equipment Inventory

A. The following equipment is owned by the Amateur Radio Emergency Corps, Inc., a Wisconsin corporation, which is tax exempt as a public charity and is held available for use by RACES/ARES personnel in connection with authorized activities:

1	Repeater 146.07/67 MHZ fixed location with remote base units connected by landline to Milwaukee County Emergency Government, City of Milwaukee Emergency Government, and National Weather Service at Mitchell Field, Milwaukee.
1	Portable Repeater 146.07/67 MHZ
10	Motorola HT 200 and HT 220 handitalkies on 146.07/67 MHZ
11	Portable batteries (Globe Union gell cells) 12v @ 7.5 AH
Misc.	Each radio amateur owns one or more radios fixed, mobile and portable which may be turned to various frequencies.

6. Deficiencies

A. Additional equipment needed: a second repeater on 450 MHZ, radio teletype equipment, a communications trailer equipped with generator, antennas, heating and cooling equipment, additional base/mobile and portable transceivers to supplement or substitute for volunteers' equipment.

B. Continuous training and drills necessary to familiarize and train volunteers in proper procedures and discipline necessary in emergency communications.

WILLIAM F. O'DONNELL

MILWAUKEE COUNTY EXECUTIVE OFFICE ROOM 306-COURTHOUSE • MILWAUKEE, WISCONSIN 53233 • TELEPHONE 278-4211

January 25, 1980

Mr. Michael P. Early, Administrator
WI Division of Emergency Government
Hill Farms State Office Building
4802 Sheboygan Avenue
Madison, WI 53702

VIA: Robert L. Williams, Director
Southeast Area DEG

Dear Mr. Early:

The Milwaukee County Amateur Radio Emergency Service (A.R.E.S.) has a commendable record of providing back-up communication for the Division of Emergency Government. They have demonstrated a disciplined operational capability which is rare in a volunteer agency.

In order to further enhance the operational capacity of the Milwaukee County Emergency Operation Center (EOC), I am appointing the Emergency Coordinator, currently John Leekley, for the Milwaukee County A.R.E.S. to the position of Radio Amateur Civil Emergency Service (RACES) Officer. He will be responsible for development of an acceptable RACES plan which is compatible with the Milwaukee County Emergency Operations Plan, and will become a part thereof. Enclosed is a list of A.R.E.S. members who qualify for the RACES license.

Please inform the State RACES Officer of this appointment.

Sincerely,

William F. O'Donnell
County Executive

WFO'D:gj
Enc
cc: Timothy J. Riordan, Director,
Emergency Government
John Leekley, Emergency Coordinator,
A.R.E.S.